

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

		SOURCE
B 07	ROOMS FINSHING – MATERIALS - EQUIPMENT	B 01
	Products, quality characteristics etc. described below shall be specified. Services with brand names or order data shall be provided in the items with additive "or equal" .	B 02
	When the project is to be designed by the Bauamt or their A/E, brand names are permitted in the specification. The manufacturer's name should be followed by the works "or equal" .	B 03
	When the project is to be designed thru the Corps of Engineers in direct mode, the use of brand names is not allowed. The salient characteristics of each item must be stated instead. In some cases, a manufacturer's name can be stated, along with the salient characteristics, when it is determined that it is needed to establish a level of quality. In this case, the work "or approved equal", will not follow the manufacturer's name as the salient characteristics will be the governing factors in approving a qualified product.	B 04
	The use of brand names in a specification, direct or indirect, is for the sole purpose of setting a standard of quality, or to inform the contractor of an existing system that is specified to expand. Specifications will state, for example, "equipment must be compatible with the existing system".	B 06
	If brand names are used in a specification, the following statement must be placed in front of the specification: "Where ever a brand name appears in this specification, its sole purpose is to help define the Government's standard of quality. It is not intended to imply that the brand name is favored or required".	B 07
	All equipment and/or building elements in the description below, identified with the additional "Government furnished" shall be incorporated in the project design.	B 08
	The U.S. Government furnishes this equipment, delivers it to the point of installation, erects it and connects it at existing connections including start-up.	B 09
	Project connections for all this equipment – where connections are required – shall be provided. The contractor has to participate in the start-up. It shall be specified that the contractor has to participate at this start-up.	B 10
	All other equipment, furniture, signs and building elements shall be procured as part of the project.	B 11
	As far as possible, at least three equal manufacturers and/or products are named for each product in the design guidelines. The products are listed either in the list of equal products or in text or in the list of equivalents and color shade list.	B 12
	If possible, the designer shall determine one product series upon commencement of design, specify it, however, provide the items with the additive "or equal" .	B 13
	In the course of specification, the designer shall verify whether the listed manufacturer has changed the product or its quality. If the characteristic features or the quality are no longer existing, the product shall not be used.	B 14
	The lists serve the designers also at the review of offers with equivalent offers. All listed products will be considered as equal.	B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

			SOURCE	
B 07.1	MAIN FLOORS APARTMENTS (LIVING/BEDROOMS WITH CLOSET ROOMS AND KITCHENETTE)			B 01
B 07.1.1	BEDROOMS (with closets and kitchenette):			B 02
B 07.1.1.1	Walls: The walls shall be bricked and plastered, with plaster MG P II; gypsum plasterboard stud walls are acceptable; as exception: these shall be spattled, leveled and 2 x painted. Gypsum plasterboard stud walls or other lightweight partition walls are acceptable only when prior approval from USAREUR ODCSENGR is obtained prior to commencement of design. For type and color selection, see color schedule sound insulation values of walls, see		DIN 18 550 T2	B 03
			B 08 B 03.2.1	B 04
	Walls kitchenette The back wall and side walls – as far as visible - on top of countertop up to below firmly installed top cabinet will be tiled in the area of kitchenette. The niche for installation of refrigerator will be tiled on three sides from floor up to ceiling. The tiles shall be tiled lateral and at back walls at least 10 cm below the furniture; cuts are not allowed.			B 05
	Tiles shall be: Format: 10 x 10 Product: V+B UNIT ONE			B 06
	Alternative makes are: OSTARA AGROB BUCHTAL			B 07
	Article no. and color shade: see list of equal products - color shade list		B 08 Page 197-198	B 08
	The connection joints between countertop and tiles shall be sealed permaelastically.			B 09
B 07.1.1.2	Picture boards (only bedroom): Wall fastened picture board made of solid wood (RAMIN) 100/18 mm, with groove towards wall at the top edge, 5 x 15 mm, rounded bottom edge. Fastening on the wall with countersunk screws at regular distance (max. 60 cm). The picture boards shall be painted to match wall color tone and finished with transparent silk lacquer. Mounting height: 1.80 m above top edge of finished floor level. Distance from doors and corners: approx. 20 cm. To be only installed on walls, suitable for mounting of at least 80 cm long rails. See Fig. 07.2 , boards shall be furnished as one piece without joint and installed.			B 10
	5 hooks will be planned per m: Product: HYDROMECH Art. no.: 30-0126-0102			B 11
	Picture board corridor see		Page 122	B 12
				B 13
				B 14
				B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

		SOURCE	
B 07.1.1.3 Window sills (inside):			B 01
Window sills shall be manufactured of cast stone			
Grain up to	6 mm		
Minimum thickness	30 mm		B 02
all exposed sides sanded and polished			
Color and design			
acc. to	DASAG/floor covering		
Alternative makes are:	REOLIT GmbH, Betwonwerkstein/ Naturstein		B 03
	BUSSE Marmor- und Betonwerke GmbH		
	BAUSTOFFWERK Unterfahlheim		B 04
Article no. and color shade	see list of equal products color shade list	B 08 Page 197-198	
B 07.1.1.4 Floors:			B 05
Floor composition with floating screed (cement screed); to be finished with 2 mm thick rubber course finish.			
The joints shall be pointed with thermal cord.			
Product:	FREUDENBERG		B 06
	noraplan stone no. 149		
Building material class:	B 1		B 07
Alternative makes are:	SAARGUMMI		
	DUNLOPLAN		
Article no. and color shade	see list of equal products color shade list	B 08 Page 197-198	B 08
B 07.1.1.5 Baseboards:			B 09
Baseboards made of solid wood (RAMIN), rounded, bottom line as rectangular edge shall be installed.			
Dimensions:	110 / 18 mm		B 10
Fastening of baseboards shall be at regular intervals (max. 50 cm) on top of the floor finish. The joint between floor finish and baseboard shall be filled with silicone. Openings and wall unevenness permissible acc. to DIN 18 202 shall be pointed permaelastically with polyurethane material.			B 11
A base trim made of solid wood (RAMIN) shall be additionally attached to the baseboards, with rounded edges.			
Dimension	80 x 40 mm		B 12
Execution as per	Fig. 07.1		
Completed baseboards shall receive mass paint finish; material and color shade see		B 08 Page 197-198	B 13
Basically, vertical standing baseboards shall be installed with brooming laths. Situations can arise in which horizontal installed baseboards required in order to observe wall distances.			B 14
			B 15

Fig. 07.1 Baseboard constructions

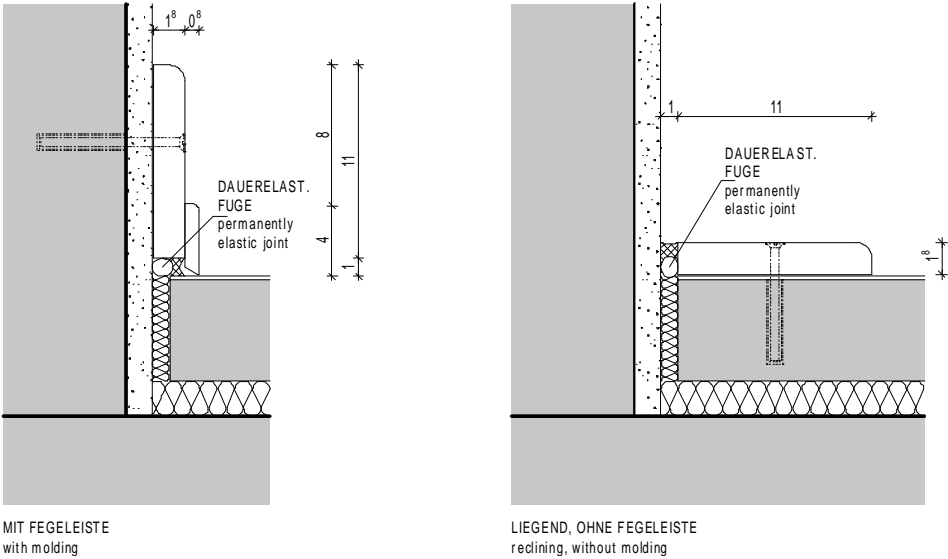
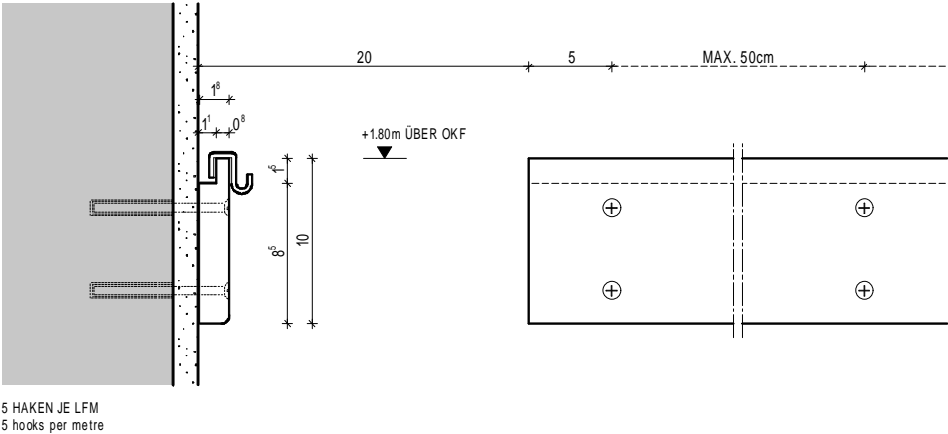


Fig. 07.2 Picture board construction



SOURCE

B 01

B 02

B 03

B 04

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DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

SOURCE

Fig. 07.3 Pillar protection

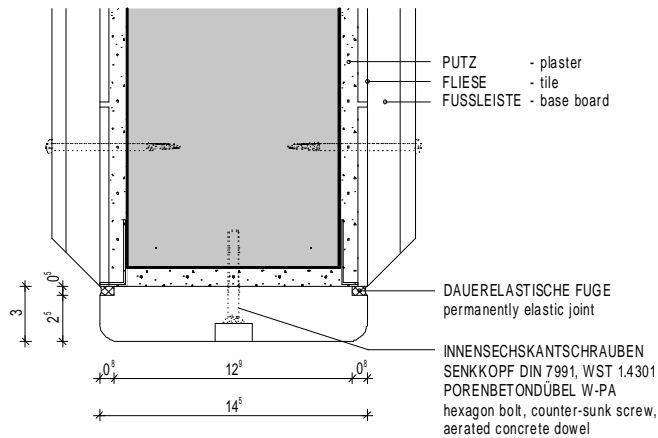


Fig. 07.4 Pillar protection

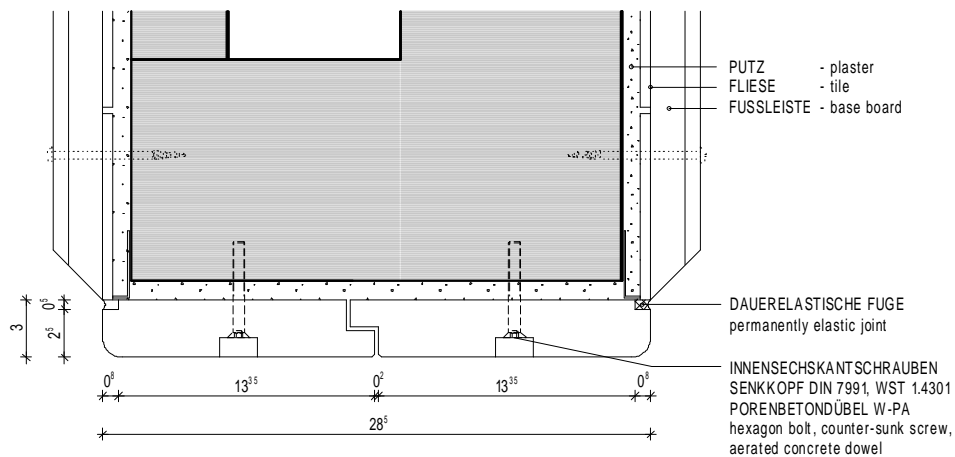
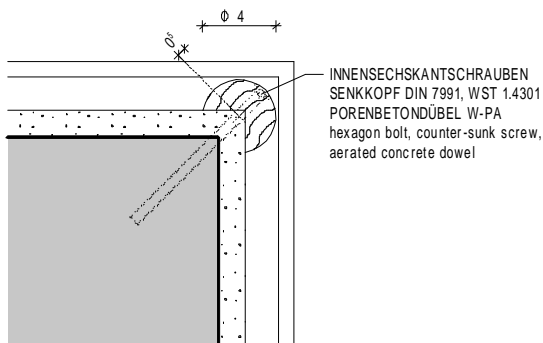


Fig. 07.5 Corner protection



The pillar protection and corner protection shall be made of solid beech wood. The surfaces shall be ground and enamelled transparent. Dry layer thickness at least 80 mü. Accomplishment see wall dimensioning to standard layouts.

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

		SOURCE	
B 07.1.1.6	Ceilings:	B 08 Page 201	B 01
Ceilings shall be plastered and painted. A gypsum plasterboard planking or other planking is allowed in exceptions. This shall be coordinated with USAREUR upon commencement of design. Suspended ceilings shall be used only to conceal exposed installed supply lines. Material and color see color schedule			B 02
B 07.1.1.7	Curtain Rails and Curtains	B 07 Page 187-188	B 03
See Section, item 07.4.13.1			B 04
B 07.1.1.7.1	Without Suspended Ceiling		B 05
Curtain rails made of wood, internal guide rail made of white PVC with wooden core, without joints and adhesive agents. 50 mm high pelmet made of plywood with white PVC coating. Construction with 3 continuous covering rails with extended running distances at covering rails. End pieces on both sides as well as 20 plastic runners with safety clip to avoid removal, if curtains are washed. Furthermore 2 x 90° bends at the ends to return the rails towards the wall. The rail runs along the ceiling at a distance of 20 cm from the wall. Curtain rails shall not be installed along the entire room length. Rails shall extend at both sides approx. 20 cm beyond windows. E.g. Product: MHZ Article no.: 01-6112			B 06
B 07.1.1.2	Curtain Rail Support Case of Suspended Ceiling		B 07
The substructure for curtain rails, if suspended ceilings are required, consist of 20 cm wide wooden ledges, 2.5 cm thick, to be installed with steel angle on the exterior wall above suspended ceiling. The length is identical with the length of the curtain rail. The rail shall be additionally fastened on the suspended substructure.			B 08
B 07.1.1.3	Curtains / Side Curtains	B 07 Page 187-188	B 09
The curtains and side curtains see Section, item B 07.4.13.1 ,			B 10
B 07.1.1.8	Equipment closet rooms: (Fig. 06.6)		B 11
The equipment of closet rooms is shown on standard layouts and appropriate wall dimensions/sections. The following description includes one type. The constructions shall be adjusted to types and specified accordingly.			B 12
A deposit shelf of beech veneer multiplex boards, with lateral support, corner arrangement, chamfered edges, shall be provided in each walk-in closet. Thickness 40 mm Width 60 cm with high load capacity. Boards shall be supported with steel supports of rectangular pipes diameter 40/2.5 mm provided with head and foot plates.			B 13
Angles made of material 1.4301 dimensions 45 / 40 / 5 mm as supports shall be dowelled on the walls. Half pipe sections shall be welded at rectangular pipes as support for cloth rods.			B 14
			B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

			SOURCE	
Tubular pipe cloth rods material surface diameter wall thickness	1.4301			B 01
	grain 240			
	33 mm			B 02
	2.5 mm			
Multiplex boards shall be finished with natural colored DD-paint. Rails dowelled to the wall shall be painted with the same color as the wall.				B 03
Entrance door from corridor to apartment	see		B 07.4.4	
Door from apartment into bedroom				
Standard layout Fig. 06.3	see			
Door to joint bathroom	see		B 07.4.5	B 04
Door to closet room	see		B	
Window bedroom:	see		B 07.4.11	
				B 05
				B 06
				B 07
				B 08
				B 09
				B 10
				B 11
				B 12
				B 13
				B 14
				B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

			SOURCE
B 07.1.2 KITCHENETTES In living/bedrooms: In apartments/anterooms e.g. standard layout Fig. 06.3 The kitchenettes shall be equipped with following listed equipment, the kitchenette equipment shall be procured as part of the project The scope of service includes the entire kitchenette equipment. The scope of work includes the complete hardware, e.g. dowels, screws, coverings, clamps etc. as well as the connection to hot, cold and sewer water lines, connection joints between equipment and tiles shall be sealed permaelastically. B 07.1.2.1 Equipment kitchenette Kitchenette width 1.25 m (1.20) / 1.15 m (1.10) / 1.05 m (1.00) Product: BECKER MAPLE light imitation no. 14.1b Metal bow handle chrome gloss Handle arrangement bottom cabinets horizontal Handle arrangement top cabinets vertical Article no. 101 Hinges pot hinge Product HETTICH Article no. 110 Alternative makes are: ZEYKO LEICHT Article no. Product BECKER are: see section B 06 Fig. 06.08 – kitchenette 1.25 Fig. 06.09 – kitchenette 1.15 Fig. 06.10 – kitchenette 1.05			B 01
			B 02
			B 03
			B 04
			B 05
			B 06
			B 07
			B 08
			B 09
			B 10
			B 11
			B 12
			B 13
			B 14
			B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

		SOURCE	
B 07.1.3	BATHROOM – Bedroom		B 01
The bathrooms shall be generally constructed as conventional bathroom modules.			B 02
The partitions shall be masonry, shower cubicle including skirtings shall be also masonry. Execution and equipment as specified standard design Fig. 06.1 up to Fig. 06.5		B 06.1- B 06.5	B 03
If bathrooms are to be constructed of prefabricated elements, the product shall be tested by an independent test laboratory. Fire distribution of max. 25 and smoke distribution of max. 50 as per ASTM 584 (NFPA 255) shall not be exceeded.		ASTM 584 (NFPA 255)	B 04
If structural considerations require lightweight walls, coordination with "USAREUR" is necessary prior to commencement of design. If lightweight walls are to be constructed, a min. 5 mm thick wall plaster as subbase for damp proofing and tile application shall be provided in the wet room.			B 05
B 07.1.3.1	Walls:		
All walls will be plastered with plaster MG P II and tiled to a height of approx. 15 cm above suspended ceiling.		DIN 18 550 T2	B 06
The walls of shower cabin shall be sealed up to top edge tiles in the moisture stress class II incl. water-proof connections to shower tub borders and fittings Fig. 07.7		Mkbl ZDB	B 07
As tiles shall be installed:			
Format:	10 x 10		
Product:	V+B UNIT ONE		
Alternative makes are:			B 08
Article no. and color shade		see list of equal products - color shade list	B 09
B 07.1.3.2	Floor:		
The bathroom shall be provided on the rough floor or rough slab with a first damp proofing level and a second sealing level on screed. Door passages shall be effectively sealed with angle rails of material 1.4301 (stainless steel) (Fig. 07.6)			B 10
and a damp proofing of rail.		Page 82	
Each bathroom shall receive cement screed. Sound insulation below the screed can consist of two layers of ETAFOAM. An effective damp proofing is considered to be more important than sound insulation. The screed including the wall joint shall be damp proofing acc. to Mkbl. ZDB.			B 11
Sealing in moisture stress class II		Mkbl ZDB	B 12
Damp proofing shall be raised on the wall min 15 cm above the screed (second damp proofing level).			
Floor inlets shall be installed with epoxy, back wash proof (Fig. 07.8). The floor shall be tiled. As tiles shall be installed:		Page 83	B 13
Format:	10 x 10		
Product:	V+B UNIT ONE		
Alternative makes are:			B 14
Article no. and color shade		see list of equal products - color shade list	B 15

Fig. 07.6 Door threshold sealing

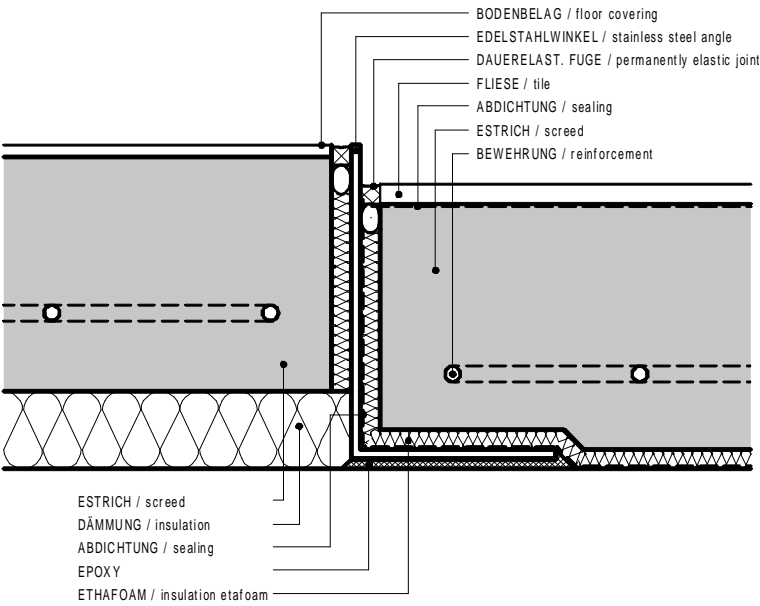
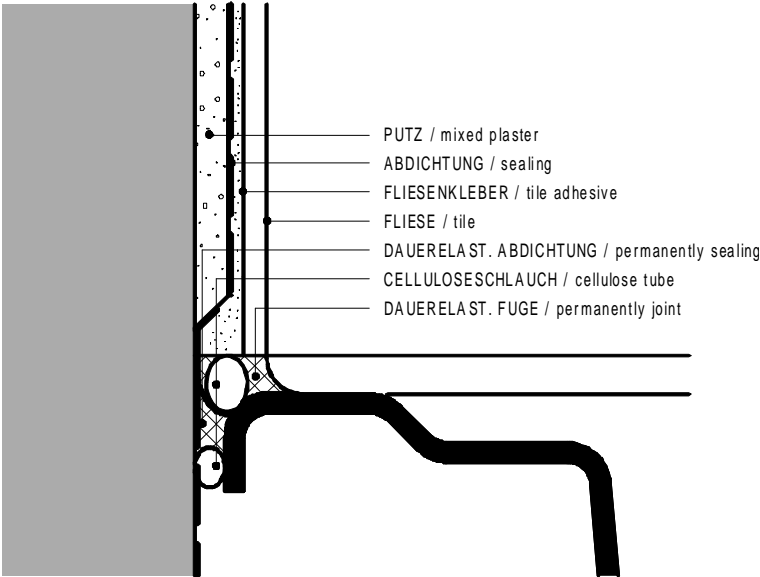


Fig. 07.7 Connection tub border



SOURCE

B 01

B 02

B 03

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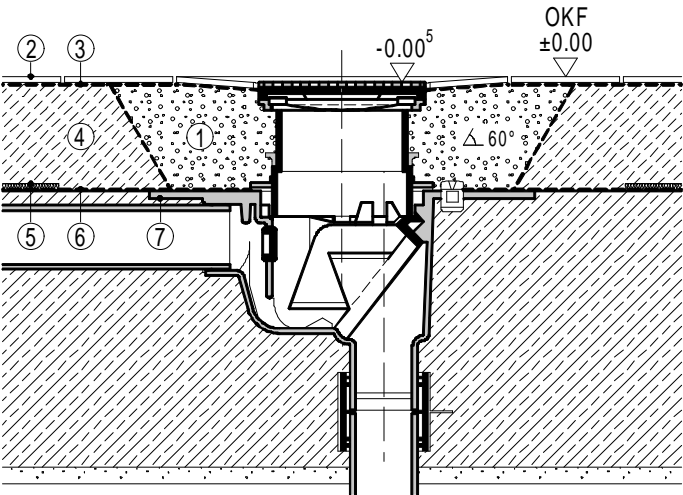
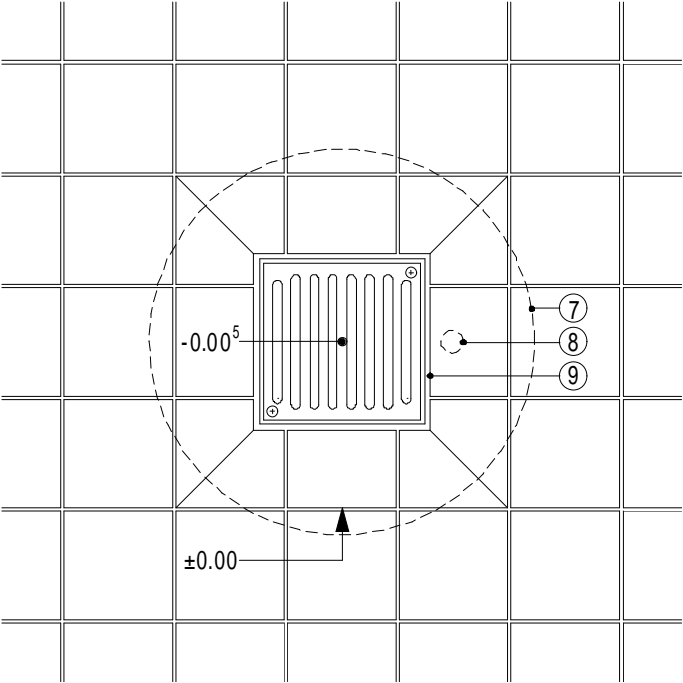
DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

SOURCE

Fig. 07.8 Floor drain – installation and sealing (lateral supply)

the floor drain in bathroom and/or all other floor drains shall be installed and sealed two-layered acc. to following sketch.



- 1 Epoxy resin filling
- 2 Tiles
- 3 Top sealing level
- 4 Screed 45°- 60° sloped
- 5 5mm Ethafoam
- 6 Bottom sealing level
- 7 Flange
- 8 Grounding
- 9 Permaelastical joint

B 01

B 02

B 03

B 04

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DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

			SOURCE	
B 07.1.3.3	Ceilings:			B 01
Ceilings in bathrooms shall be suspended with a metal substructure, galvanized, (hangers shall be exclusively Nonius hangers), planking with gypsum plasterboards (wet room boards), surface plastered with plaster MG PII, 5 mm thick, surface felted and painted.			DIN 18 550 T2	B 02
The designer shall investigate the steam diffusion, a vapor barrier shall be installed if required.				B 03
The wall connection joints shall be sealed.				B 04
Article no. and color shade	see list of equal products - color shade list		B 08 Page 201	B 04
Windows	see		B 07.4.11	B 05
B 07.1.3.4	Equipment			B 06
Sanitary equipment	see		B 10	B 07
				B 08
				B 09
				B 10
				B 11
				B 12
				B 13
				B 14
				B 15

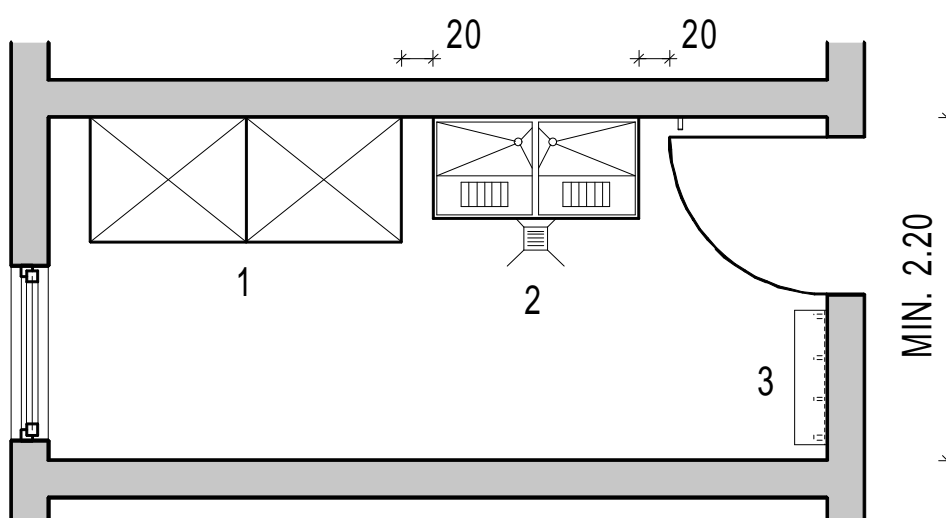
DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

		SOURCE	
B 07.1.4	JANITOR'S CLOSET:		B 01
The janitor's closet Fig. 07.9 shall be arranged as required. Janitor's closet shall be provided basically with a window; they shall be additionally provided with mechanical exhaust air system.			B 02
B 07.1.4.1	Walls:		
Plastered, with plaster MG P II, tiling at room height		DIN 18 550 T2	B 03
Alternative makes are:	OSTARA AGROB BUCHTAL		B 04
Article no. and color shade	see list of equal products - color shade list	B 08 Page 197-198	B 05
B 07.1.4.2	Floor:		
The janitor's closet shall be provided on the rough floor or rough slab with a first damp proofing level. Door passages shall be effectively sealed with angle rails of material 1.4301 (stainless steel) [Fig. 07.6] and a damp proofing of rail.			B 06
Each janitor's closet shall receive cement screed. Sound insulation below the screed can consist of two layers of ETAFOAM. An effective damp proofing is considered to be more important than sound insulation. The screed including the wall joint shall be damp proofed.			B 07
Damp proofing in moisture stress class II		Mkbl ZDB	
Damp proofing shall be raised on the wall min 15 cm above the screed (second damp proofing level). The floor shall be tiled. The floor finishes consist of tiles.			B 08
Format:	15 x 15		
Product:	V+B MAXI-FLOOR-COMMERCIAL		B 09
Alternative makes are:	OSTARA AGROB BUCHTAL		
Article no. and color shade	see list of equal products - color shade list		B 10
Edge Tiles / Cove Base Tiles:			
Flat cove base tiles shall be installed along the walls of the entire room. Wall tiles shall be installed above, separation with permaelastic joint.			B 11
Flat cove base tile:			
Format:	15 / 10.7 cm		B 12
Product:	V+B MAXI-FLOOR-COMMERCIAL		
Alternative makes are:	OSTARA AGROB BUCHTAL		B 13
Article no. and color shade	see list of equal products - color shade list	B 08 Page 199-200	B 14
			B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

				SOURCE	
B 07.1.4.3 Ceilings:				DIN 18 550 T2 B 08 Page 201	B 01
Plastered with plaster MG P II, surface smoothened and painted					
Paint material and color shade	acc. to color schedule				
B 07.1.4.4 Equipment					B 02
Clamping strip for broom with shelf and hooks					
Product	ROTTER				B 03
Article no.	B-239x34				
Wash tub made of cast stone	see			B 10	B 04
Sanitary equipment	see			B 10	
B 07.1.4.5 Sheet Steel Racks, Stainless Steel					B 05
The racks shall be fastened on wall, tilt-proof					
Steel racks incl. sheet steel shelves made of material 1.4301. The racks shall be assembled of at least 1.00 m wide elements, with the option for smaller or larger racks at any time.					
Surface:	sanded, grain 240				B 06
Height: approx.	200 cm				
Depth:	80 cm				B 07
Width: (2x100 cm) approx.	200 cm				
Number of shelves	min. 6, per rack				
Load capacity of shelves					
min.	200 kg per shelf				B 08
Rack feet	plastic/for load distribution				
Doors				see	B 07.4.6
Windows	see				B 07.4.11
Fig. 07.9 Janitor's closet					B 09
Equipment shall be installed as described.					
					
1 Stainless steel racks					B 10
2 Floor drain					B 11
3 Broom strip					B 12
					B 13
					B 14
					B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

		SOURCE	
B 07.1.5	KITCHENS:		B 01
The ground floor kitchen shall be executed according to described standard design. (Fig. 07.10).		Page 94	B 02
Rooms for kitchens shall be provided with windows. In exceptional cases, they can be constructed as internal rooms with forced ventilation. Kitchens shall be always installed from the exterior walls towards the inside.			B 03
B 07.1.5.1	Walls:		
Plastered with plaster MG P II, tiling room-high with tiles		DIN 18 550 T2	B 04
Format:	10 x 10		
Product:	V+B UNIT ONE		
Alternative makes are:	OSTARA AGROB BUCHTAL		B 05
Article no. and color shade	see list of equal products - color shade list	B 08 Page 197-198	B 06
B 07.1.5.2	Floor:		
The kitchen shall be provided on the rough floor or rough slab with a first damp proofing level. Door passages shall be effectively sealed with angle rails of material 1.4301 (stainless steel) [Fig. 07.6] and a damp proofing. Moisture stress class II		Mkbl ZDB	B 07
Each kitchen shall receive cement screed. Sound insulation below the screed can consist of two layers of ETAFOAM. An effective damp proofing is considered to be more important than sound insulation. The screed including the wall joint shall be damp proofing. Moisture stress class II			B 08
Damp proofing shall be raised on the wall min 15 cm above the screed (second damp proofing level). The floor shall be tiled. The floor finishes consist of tiles.		Mkbl ZDB	B 09
Format:	15 x 15		B 10
Product:	V+B MAXI-FLOOR-COMMERCIAL		
Alternative makes are:	OSTARA AGROB BUCHTAL		B 11
Article no. and color shade	see list of equal products - color shade list	B 08 Page 199-200	B 12
			B 13
			B 14
			B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

SOURCE			
Edge Tiles / Cove Base Tiles:			B 01
Flat cove base tiles shall be installed along the walls of the entire room. Wall tiles shall be installed above, separation with permaelastic joint.			
Flat cove base tile:			B 02
Format:	15 / 10.7 cm		
Product:	V+B MAXI-FLOOR-COMMERCIAL		
Alternative makes are:			B 03
	OSTARA AGROB BUCHTAL		
Article no. and color shade	see list of equal products - color shade list	B 08 Page 199-200	B 04
B 07.1.5.3 Ceilings:			
Plastered with plaster MG PII and painted			B 08
Paint material and color	acc. to color schedule	Page 201	B 05
B 07.1.5.4 Equipment			
Kitchen equipment on ground floor acc. to plan Fig. 07.10			Page 94
			B 06
			B 07
			B 08
			B 09
			B 10
			B 11
			B 12
			B 13
			B 14
			B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

		SOURCE
B 07.1.5.4	EQUIPMENT KITCHENS (furniture dimensions):	B 01
The kitchens shall be equipped with following listed equipment, the kitchen equipment shall be procured as part of the project The scope of service includes the entire kitchen equipment.		B 02
The scope of work includes the complete hardware, e.g. dowels, screws, coverings, clamps etc. as well as the connection to hot, cold and sewer water lines, connection joints between equipment and tiles shall be sealed permaelastically.		B 03
Kitchen on ground floor:		
Product:	BECKER	B 04
	MAPLE light imitation	
	no. 14.1b	
Metal bow handle	chrome gloss	
Article no.	101	B 05
Handle arrangement bottom cabinets	horizontal	
Handle arrangement top cabinets	vertical	
Hinges	pot hinge	
Product	HETTICH	B 06
Article no.	110	
Alternative makes are:	ZEIKO	
	Leicht	B 07
Consisting of (following details refer to make BECKER):		
1	Bottom cabinet with 1 door and 2 shelves	B 08
	width 400 mm	
	depth 570 mm	
	height 720 mm (without work top)	
	order no. U 40-30L	B 09
1	Bottom cabinet with 3 drawers and 1 front drawer	
	width 500 mm	B 10
	depth 570 mm	
	height 720 mm (without work top)	
	order no. U 50-50	
1	Cutlery insert	B 11
	order no. ZESE 150-0	
1	Sink bottom cabinet with 2 doors	B 12
	width 1200 mm	
	depth 570 mm	
	height 720 mm (without work top)	
	order no. US 120-30	
	with aluminum bottom	B 13
	order no. ZE 420-E	
1	Waste bin, tandem	
	2 x 15 l	B 14
	order no. ZE 33-E	
		B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

		SOURCE
1	Bottom cabinet with 1 door and	B 01
2	shelves, one cabinet side with „MAPLE light“ covered	
	width 300 mm	B 02
	depth 570 mm	
	height 720 mm (without work top)	
	order no. U30-30R	
1	Work top	B 03
	one-sided additionally covered front edge with laminated material panel “Maple light“	
	width approx. 2000 mm	B 04
	depth 600 mm	
	thickness 40 mm	
	order no. PSR 60 AHORN hell	
1	Recess for built-in sink in work top	B 05
	order no. ZAP30	
1	Built-in sink with 2 basins and drip part	
	material stainless steel	B 06
	exterior sizes 1235x435 mm	
	basin depth 150 mm	
	product RIEBER	
	order no. E 123/2	B 07
1	Drain set for a double sink	
	product GEBERIT	
	article no. 152.818.11.1	B 08
1	Work top	
	width 450 mm	B 09
	depth 600 mm	
	thickness 40 mm	
	order no. PSR 60 AHORN hell	
1	Wall end valve with 1 interior corner 90°, 4 front sides, divided into 3 lengths	B 10
	total length 3600 mm	
	height 30 mm	
	order no. ZP1-90/ZP3-90 (2x)	B 11
2	Metal flat parts at front sides of work top in niche of electric range shall be installed with silicone and additionally fastened with screws made of material 1.4301, grinding grain 240, flush with surface, front side adjusted to profile and cross section of work top	B 12
	length 600 mm	B 13
	height 80 mm	
	depth 10 mm	
	thickness 2 mm	
		B 14
		B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

			SOURCE
1	Base trim		B 01
	width	approx. 2000 mm	
	height	150 mm	
	order no.	ZSB 15-18	B 02
1	Base trim		
	width	approx. 450 mm	
	height	150 mm	
	order no.	ZSB 15-18	B 03
3	Side base		
	at corners connected with longitudinal bases to bevel		B 04
	depth	approx. 550 mm	
	height	150 mm	
	order no.	ZSB 15-18	B 05
1	Special base below range, consisting of wood substructure, front side and both side parts, coated same as base trims ZSB 15-18, bottom is made of multiplex panel 40 mm thick, bottom is covered with an aluminum panel, smooth, 2 mm thick. Side connections to cabinet parts sealed with silicone.		B 06
	Width	600 mm	
	height	50 mm	
	depth	570 mm	B 07
1	Top cabinet with 1 door and 3 shelves each one side wall covered with „MAPLE light“		B 08
	width	300 mm	
	depth	340 mm	
	height	912 mm	
	order no.	HN 30-30L	B 09
1	Top cabinet element for vapor escape as special cabinet with 2 doors, incl. recesses and drillings for the exhaust air of hood acc. to direction of exhaust air device manufacturer		B 10
	width	800 mm	
	depth	340 mm	
	height	592 mm	
	order no.	HM80-30	B 11
1	Top cabinet with 1 door and 3 shelves both side walls covered with „MAPLE light“		
	width	400 mm	
	depth	340 mm	
	height	912 mm	
	order no.	HN 40-30R	B 12
1	Top cabinet with 2 doors and 2 shelves and a middle wall		B 13
	width	1200 mm	
	depth	340 mm	
	height	720 mm	
	order no.	H120-30	B 14
			B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

		SOURCE
1	Top cabinet with each 1 door and 3 shelves and two side walls covered in „MAPLE light ” width 300 mm depth 340 mm height 912 mm order no. HN30-30R	B 01
		B 02
1	Shelf below top cabinet „MAPLE light“, incl. 3-sided edge band width approx. 350 mm depth 320 mm thickness 16 mm order no. KB32-B	B 03
		B 04
1	Shelf below top cabinet „MAPLE light“, incl. 3-sided edge band width approx. 300 mm depth 320 mm thickness 16 mm order no. KB32-B	B 05
		B 06
1	Shelf below top cabinet „MAPLE light“, incl. 3-sided edge band width ca. 400 mm depth 320 mm thickness 16 mm order no. KB32-B	B 07
		B 08
1	Shelf below top cabinet „MAPLE light“, incl. 3-sided edge band width ca. 1200 mm depth 320 mm thickness 16 mm order no. KB32-B	B 09
		B 10
1	Shadow lath for top cabinet width 30 – 50 mm height 912 mm order no. BUD 03	B 11
		B 12
1	Vapor escape hood 1-motor, with lighting, with metal grease catch filter size (w/h/d) 800 / 150 / 470 mm carcass color enamel white product LORENZ type UB 80	B 13
	Universal device for circulating and exhaust air, 80 cm wide, for installation below top cabinet, with 3-level switching and an integrated cooking plate lighting. Blowing out opening at top or back side.	B 14
		B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

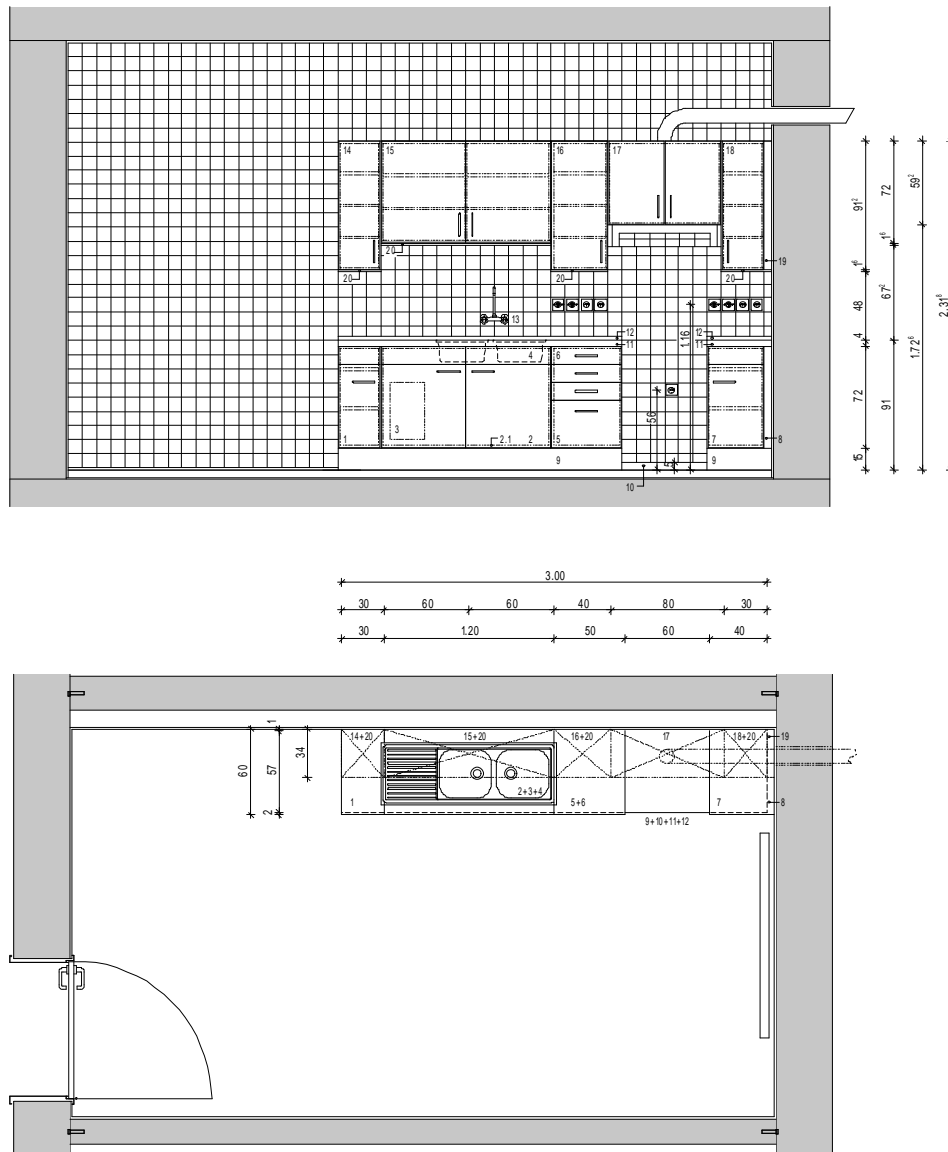
		SOURCE	
<p>Connection with a flexible stainless steel pipe length ca. 0,50 m incl. connection agents to a stainless steel pipe- duct 100 mm Ø The stainless steel pipe will be provided within the ventilation systems.</p> <p>Product TOTAL WALTHER Wachhausstraße 1 76227 Karlsruhe Tel.: 0721 / 40 97-0 Fax: 0721 / 40 97-259</p>		B 12.9.2. Page 94	B 01
			B 02
			B 03
			B 04
			B 05
			B 06
			B 07
			B 08
			B 09
			B 10
			B 11
			B 12
			B 13
			B 14
			B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

SOURCE

Fig. 07.10 Kitchen - floors



The following article numbers are referenced to make BECKER.

- | | |
|-------------------------|---------------------------|
| 1 U30-30R (U30-30L) | 11 PSR 60 |
| 2 US 120-30 | 12 ZP 1-90 / ZP 3-90 (2x) |
| 2.1 ZE 420-E | 13 ZSB 15-90 |
| 3 ZE 33-E | 14 HN 30-30L (HN 30-30R) |
| 4 RIEBER E 123/2 | 15 H 120-30 |
| 5 U 50-50 | 16 HN 40-30R (HN 40-30L) |
| 6 ZESE 150-0HN 60-30L | 17 HM 80-30 |
| 7 U 40-30L (U 40-30R) | 18 HN 30-30R (HN 30-30L) |
| 8 BUD 03 | 19 BHN 03 |
| 9 ZSB 15-18 | 20 KB 32-B |
| 10 SPECIAL CONSTRUCTION | |

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

		SOURCE	
B 07.1.5.5	FIRE EXTINGUISHING SYSTEM (Kitchens)		B 01
A fire extinguishing system shall be installed in the vapor exhaust hood and the suspended cabinet above. It shall meet the last criteria of the U.S. Underwriters Laboratories, NFPA Standards.		NFPA	B 02
The system shall fit all exhaust hoods. The pressure vessel shall not be installed within the vapor exhaust hood, but in the cabinet above. In case of fire and the release of the fuse link, an extinguishing agent will be sprayed through the pressure vessel via steel pipe into the fire on the electric range and filter. Power shut-off is a major element of the system.			B 03
Product	TOTAL-WALTHER		B 04
Type	GUARDIAN 21 CENT		
System	- Certificate EX 3940		
The fire extinguishing system contains the following elements:			B 05
1	pressure vessel for min. 7 bar N2, incl. rising capacity, brass valve, pressure gauge with display, holder, micro switch and cable tensioning nut. Vertical installation of pressure vessel in cabinet above the vapor exhaust hood.		B 06
	Filled with special extinguishing agent		B 07
	UL-certificate no. EX 3470		
	Approval by the Interior Ministry Nordrhein-Westfalen, official test institute for fire extinguishing agents and equipment		
	Exemplary product PL-8/84		
	Product TOTAL-WALTHER		B 08
	Type GHS-GD		
1	set of piping, consisting of 1 combination of stainless steel pipes and flexible hoses		B 09
	UL certificate no. EX 3940		
2	special nozzles of brass, angular, for installation in vapor exhaust hood. Adjustable with three screws and ball joint with thread NPT ¼", for applicable placement above cooking stations.		B 10
	Product TOTAL-WALTHER		B 11
	Type GHS-21 Cent		
1	release consisting of as steel cable, guide pulleys, shakes and not less than two fusible links.		B 12
	Release temperature 100°C		
	Product TOTAL-WALTHER		B 13
	Type FL-Guard		
1	special nozzle with special spray angle for protection of vapor exhaust hood and filter, as special equipment		B 14
	Product TOTAL-WALTHER		
	Type GHS-Guard	B 15	

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

			SOURCE	
All above described parts shall have a UL-certificate (Underwriters Laboratory) as complete unit.				B 01
1	power shut-down protective type consisting of:	IP 43		B 02
1	cable between potential-free contact of pressure vessel and interrupter.			B 03
1	cable between main power connection and load break switch and range			B 04
1	load break switch or solenoid valve (capacity acc. to range capacity) with restart button			
	Product	TOTAL-WALTHER		B 05
	Type	SWI-GHS		
1	potential-free contact for the activation of acoustical or optical alarm system and simultaneous alarm of fire department			B 06
1	pilot light, green			
The above described load break unit shall be installed in accordance with VDE requirements. The system shall be installed ready for operation, including load break switch for range and vapor escape hood cut-off extinguishing device and cable sets as well as instruction, acceptance and operation documents				B 07
see			VDE B 10	
Manufacturer of these systems is:				B 08
TOTAL-WALTHER Wachhausstrasse 1, 76227 Karlsruhe Tel.: 0721 / 4097-0 Fax: 0721 / 4097-259				B 09
				B 10
				B 11
				B 12
				B 13
				B 14
				B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

			SOURCE	
B 07.1.5.6 ELECTRIC RANGE – to be Installed in Kitchens				B 01
1	Electric range			
	The electric range will be U.S. Army furnished, installed, anchored to wall, connected and taken into operation.			B 02
	The permaelastic filling of connection joints between range and built-in kitchen and the wall shall be specified with the project.			
	Total width approx.	615 mm		B 03
	Total height approx.	915 mm		
	Total depth approx.	635 mm		
	Range voltage	380 V, 50 A, 50 Hz.		
Doors		see	B 07.4	B 04
Windows		see	B 07.4.11	
				B 05
				B 06
				B 07
				B 08
				B 09
				B 10
				B 11
				B 12
				B 13
				B 14
				B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

		SOURCE	
B 07.1.6	CORRIDORS:		B 01
B 07.1.6.1	Walls:		
Plastered with plaster MG P II		DIN 18 550	B 02
Plastering flush with tiles on top of tiles up to ceiling, surface of plaster smoothed, tiled up to top edge door jamb, tiles installed vertical, top row installed horizontal.		T2	
The base shall be installed flush with tiles.			B 03
Format:	25 / 12.5 cm		
Thickness:	8 mm		
Product:	AGROB BUCHTAL		B 04
Alternative makes are:	GAIL		
Paint material and color:	see color shade list	B 08 Page 197-198	B 05
B 07.1.6.2	Floor:		B 06
Cast stone covering installation in mortar bed with recipe installation mortar of MG III, acc. to DIN 1053-1		DIN 1053-1	B 07
All floors shall be installed in accordance with DIN 18 022, Table 3, Line 4 with reference to evenness.		DIN 18 022	
Contrary to VOB/C DIN 18 333 finishes shall be installed with increased accuracy. Height difference (acc. to DIN 18 333, para. 3.1.2) between adjacent slabs is not acceptable.		DIN 18 333 para. 3.1.2	B 08
Format:	30 / 30 cm		B 09
Product:	DASAG		
Hardness class:	I		
Alternative makes are:	REOLIT GmbH, Betonwerkstein/ Naturstein BUSSE Marmor- und Betonwerke GmbH BAUSTOFFWERK Unterfahlheim		B 10
Article no. and color	see list of equal products color shade list	B 08 Page 199-200	B 11
Door thresholds of one piece without joint, adjusted in door niche			B 12
Product:	DASAG		
Hardness class:	I		
Alternative makes are:	REOLIT GmbH, Betonwerkstein/ Naturstein BUSSE Marmor- und Betonwerke GmbH BAUSTOFFWERK Unterfahlheim		B 13
Article no. and color	see list of equal products color shade list	B 08 Page 199-200	B 14
			B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

SOURCE			
<p>Baseboard: natural stone (granite), sanded and polished, installed flush with wall, glued in Buttering-Floating-method. Height adapted to remaining difference from wall finishes (see B 07.1.6.1).</p> <p>Height: 24 cm</p> <p>Width: 24.5 cm</p> <p>Thickness min. 10 mm, material calibrated</p> <p>Product Bianco Cristallo</p>			B 01
			B 02
			B 03
			B 04
<p>Alternative makes are: REOLIT GmbH, Betonwerkstein/ Naturstein BUSSE Marmor- und Betonwerke GmbH BAUSTOFFWERK Unterfahlheim</p>			
<p>Article no. and color see list of equal products color shade list</p>	B 08 Page 199-200		B 05
B 07.1.6.3 Ceilings:			B 06
<p>Suspended ceiling structure, open metal system, white coating, removable panels.</p> <p>Wall connection with dummy joint no. 56 – see pamphlet 16/OWAcoustic.</p> <p>Suspension system: metal substructure, galvanized, hangers shall be Nonius hangers only, or equivalent products.</p>			B 07
<p>Standard grid 62⁵ x 62⁵ cm</p> <p>Panel thickness: 20 mm</p> <p>Product: OWAcoustic</p> <p>System: S 15</p> <p>Construction material class: A 2</p>			B 08
<p>Alternative makes are: ARMSTRONG WILHELMI</p>			B 09
<p>Article no. and color see list of equal products color shade list</p>	B 08 Page 201		B 10
Doors	see	B 07.4	B 11
Windows	see	B 07.4.11	B 12
			B 13
			B 14
			B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

Fig. 07.11 Corridors floors

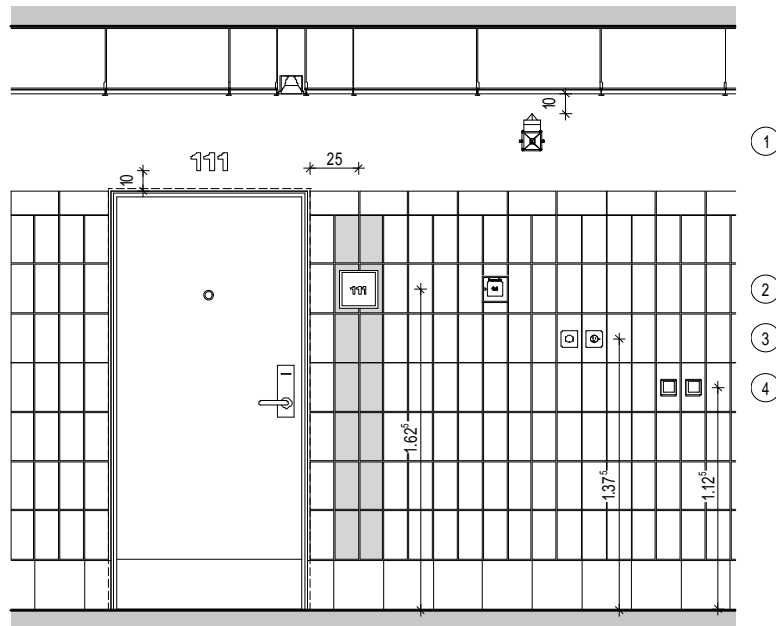
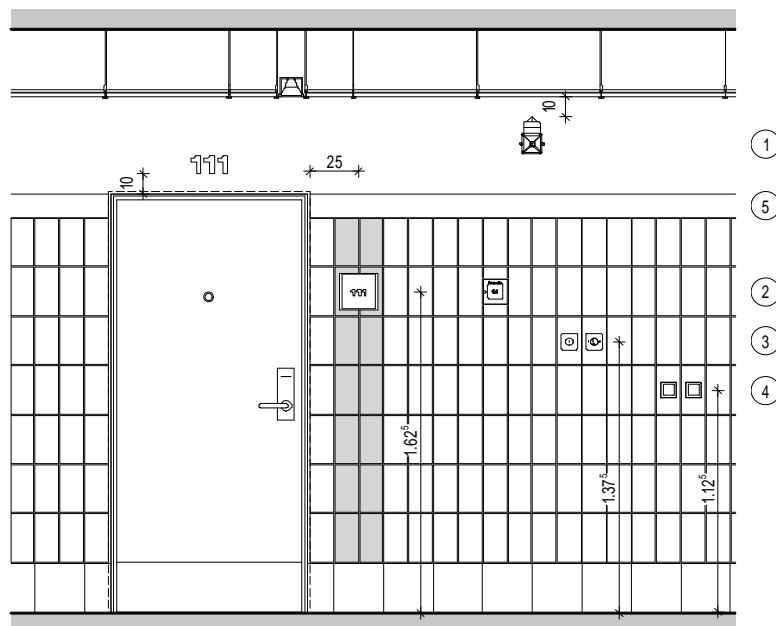


Fig. 07.12 Corridors basement



Montagehöhen Elektroteile:

- ? Blitzschutzschallgeber / flash light
- ? Türtaster / door button
- ? Steckdosen, Telefonanschlüsse, Druckknopfmelder / sockets, telephone connections, push button
- ? Schalter / switches
- ? Bilderleiste / picture board

SOURCE

B 01

B 02

B 03

B 04

B 05

B 06

B 07

B 08

B 09

B 10

B 11

B 12

B 13

B 14

B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

		SOURCE	
B 07.1.7	STAIRCASES:		B 01
B 07.1.7.1	Walls:		
Walls plastered with plaster MG P II up to ceiling.		DIN 18 550	B 02
Above tiles, plastered flush with tiles up to ceiling, surface smoothened and painted. Approx. 2.15 m high (top edge steel jamb corridor doors) tiled, tile installation vertical, top row horizontal or sloped.			
Format:	25 / 12.5 cm		B 03
Thickness:	8 mm		
Product:	AGROB BUCHTAL		
Alternative makes are:	GAIL		
Article no. and color	see list of equal products color shade list	B 08 Page 197-198	B 04
Paint material and color	see color list (plaster)	B 08 Page 197-198	
B 07.1.7.2	Floor landings:		B 05
Cast stone covering installation in mortar bed with recipe installation mortar of MG III, acc. to DIN 1053-1		DIN 1053-1	
Format:	30 / 30 cm		B 06
Product:	DASAG		
Hardness class:	I		
All floors shall be installed in accordance with DIN 18 022, Line 4 with reference to evenness. Contrary to VOB/C DIN 18 333 finishes shall be installed with increased accuracy. Height difference (acc. to DIN 18 333, para. 3.1.2) between adjacent slabs is not acceptable.		DIN 18 022	B 07
		DIN 18 333 digit 3.1.2	
Alternative makes are:	REOLIT GmbH, Betonwerkstein/Naturstein BUSSE Marmor- und Betonwerke GmbH BAUSTOFFWERK Unterfahlheim		B 08
Article no. and color	see list of equal products color shade list	B 08 Page 199-200	B 09
Base accomplishment of landings:			
Material:	granite, polished		B 10
Format:	24 / 24,5 / 1 cm		
Product:	Bianco Cristallo		
Article no. and color	see list of equal products color shade list	B 08 Page 199-200	B 11
Stair steps			
Stair steps as angular steps.			
Material and accomplishment same as above described cast stone finish. The front edge of step shall be provided with an anti-slip edge. The slip-proof edge shall be water blasted, sectional rubber inlays are unacceptable.			B 12
Base accomplishment of stairs:			B 13
In order to make technically perfect connections of wall finish possible, the bases shall be accomplished as episcopal caps.			
Material and accomplishment: same as above described base accomplishment of corridors.			B 14
			B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

		SOURCE	
B 07.1.7.3	Ceilings/Platform and Stair Undersides:		B 01
	Plastered with plaster MG P II, surface smoothened and painted 2 x	DIN 18 550 T2	
	Paint material and color	see color schedule	B 02
B 07.1.7.4	Stair Railing:		B 03
	Existing heavy-duty stair railings shall be reused, whenever possible, and adapted to present legal requirements and American regulations. New railings shall be constructed, if reuse of existing railings not possible. they shall have the following requirements:	see	B 04
B 07.1.7.5	Handrails:		B 05
	Minimum height:	1.10 m top edge of handrail at stair well and landing railing *)	
	Material:	1.4301, stainless steel	
	Tubular steel pipe:	diameter 44.5/2.9 mm	
	Surface:	sanded, grain 240	
	*) Heights are measured vertically at the front edge of the step.		B 06
	Handrails shall be also installed on wall sides.		
	Minimum height:	0.96 m top edge of handrail *)	
	Material:	1.4301, stainless steel	
	Tubular steel pipe:	diameter 44.5/2.9 mm	
	Surface:	sanded, grain 240	
	*) Heights are measured vertically at the front edge of the step.		B 07
	All other railing elements shall be constructed of tubular steel pipes and vertical round rods/solid, or of flat steel. Heavy-duty execution and anchoring is very important. All steel elements shall be painted.		B 08
	Paint material and color	see	B 09
B 07.1.7.6	Window grilles:		B 10
	If there are existing windows with low railing height, they shall be secured on the inside with removable steel grilles to protect against falling out, minimum height 1.10 m, design adapted to stair railings.		
	Exit and entrance doors wood type	see	B 11
	Exit and entrance door steel type	see	
	Staircase doors to corridors	see	
Windows	see		B 12
			B 13
			B 14
			B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

		SOURCE	
B 07.2	BASEMENT		B 01
All basement floor compositions, including reinforced concrete slabs, shall be removed, if they are not provided with a functioning damp proofing against rising moisture and show evidence of structural damages.			B 02
New floor structures shall be installed and damp proofed according to construction standards as per DIN 18 195, Part 4; appropriate thermal insulation shall be installed upon required.		DIN 18 195 T 4 EnEV	B 03
All basement light wells shall be replaced. Light wells shall be of reinforced concrete, with open bottom			B 04
Wall thickness min.	15 cm		B 05
Anchoring with	fastening agents made of material 1.4301		B 06
The light wells shall be covered with grates incl. angle frame. Grates to be hot dip galvanized.			B 07
Mesh width max.	30 x 30 mm		B 08
Load capacity of grate min.	400 kg/ m ²		B 09
The grate shall be secured against lifting. The light well has no bottom, the base area shall be filled with coarse gravel (seepage). The backwash level of 15 cm from top edge of gravel to bottom edge of window shall be observed.			B 10
The entire exterior basement walls shall be damp proofed vertically. Exterior basement walls shall be provided with perimeter damp proofing in the area of soil contact, which also allows drainage of surface water.			B 11
See also		B 03.2.3	B 12
B 07.2.1	MECHANICAL ROOMS		B 13
All mechanical rooms in the basement shall not be provided with suspended ceilings. Lines, cable runways shall be placed accurately underneath the ceiling.			B 14
B 07.2.1.1	Walls:		B 15
Wall surfaces shall be plastered with plaster MG P II, surface shall be felted and painted twice/dull.		DIN 18 550 T2	B 16
Paint material and color:	see color schedule	B 08	B 17
B 07.2.1.2	Floor:		B 18
Reinforced concrete slabs, single-layer, surface shall be smoothened, or reinforced concrete slabs with composite screed, upon admixture of hard aggregate grain of not less than 15 kg/m ² (=1 cm wear course), smoothened surface, surface R 10, surface shall be coated with PU-enamel, transparent, for dust bonding.		Mkbl ZH 1/571	B 19
Floors in power supply rooms shall be finished with cast stone slabs and provided with a floor base.			B 20
Execution (same as floors corridors) acc. to		B 07.1.7.2	B 21
B 07.2.1.3	Ceilings:		B 22
Ceiling surfaces shall be plastered with plaster MG PII, surface felted and painted twice.		DIN 18 550 T2	B 23
Paint material and color	see color schedule	B 08	B 24
Doors	see	B 07.04.9	B 25
Windows	see	B 07	B 26

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

		SOURCE	
B 07.2.2	LATRINES IN BASEMENT (incl. shower cubicles in latrines)		B 01
<p>The latrines in basement shall be designed based upon attached standard designs Fig. 07.13 – Fig. 07.15. One each shower cabin shall be provided in these rooms.</p> <p>Latrines are allocated to fire section “Corridor”, partition walls to adjacent rooms shall be therefore constructed with same fire resistance (F 90) as the corridor walls. Latrines are separate for women and men.</p>			B 02
			B 03
B 07.2.2.1	Walls:		
Walls plastered with plaster MG P II and room-high tiled with tiles		DIN 18 550 T2	B 04
Format:	10 x 10		
Product:	V+B UNIT ONE		B 05
Alternative makes are:	OSTARA AGROB BUCHTAL		
Article no. and color	see list of equal products color shade list		B 06
B 07.2.2.2	Floor:		B 07
<p>The floors shall be provided on the rough floor or rough slab with a first damp proofing level. Door passages shall be effectively sealed with angle rails of material 1.4301 (stainless steel) [Fig. 07.6] and a damp proofing acc. to moisture stress class II latrines in basement shall receive cement screed. Sound insulation below the screed can consist of two layers of ETAFOAM. An effective damp proofing is considered to be more important than sound insulation. The screed including the wall joint shall be damp proofing acc. to moisture stress class II Damp proofing shall be raised on the wall min 15 cm above the screed (second damp proofing level). The floor finish consists of tiles.</p>		Mkbl ZDB	B 08
		Mkbl ZDB	B 09
Format:	10 x 10		
Product:	V+B PRO ARCHITECTURA		B 10
Alternative makes are:	OSTARA AGROB BUCHTAL		
Article no. and color	see list of equal products color shade list	B 08 Page 199-200	B 11
<p>The outer row of the floor finish consists of flat cove base tiles. A permaelastical joint shall be provided between the cove base tile and above-grade wall tiles.</p>			B 12
Flat cove base tile:			B 13
Format:	10 x 10.3 cm		
Product:	V+B PRO ARCHITECTURA		
Alternative makes are:	OSTARA AGROB BUCHTAL		B 14
Article no. and color	see list of equal products color shade list	B 08 Page 199-200	B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

			SOURCE	
B 07.2.2.3	Ceilings:			B 01
Space conditions permitting, a suspended aluminum ceiling structure shall be installed without insulation layer, incl. all structures below and above. Only Nonius hangers shall be used.				B 02
Step angle sections shall be provided at transitions from wall to ceiling. Mounting height (minimum height) 2.25 m above floor level.				B 03
Panel shape:	F			B 04
Panel height:	12 mm			B 05
Panel width:	84 mm			
Module:	100 mm			B 06
Type:	aluminum, perforated			
Perforation:	B-perforation rate 22%, diameter 1.0 mm			B 07
Product:	RICHTER			
System:	16.1			B 08
Alternative makes are:	LINDNER GRÜNZWEIG + HARTMANN			
Article no. and color	see list of equal products color shade list		Page 201	B 09
Exception:				B 10
If the room height does not permit the installation of the above described ceiling, the ceiling shall be plastered with plaster MG P II and painted 2 x			DIN 18 550 T2	B 11
Paint material and color	see color schedule		B 08	B 12
The wall connection joints shall be sealed.			Page 201	
B 07.2.2.4	Toilet stall – Partitions			B 13
Partitions and privacy walls made of plastic sandwich elements, plastic lamination all around, suspended wall structure (without feet). All aluminum elements with powder coating or material 1.4301, surface grain 240. Wall hooks with a door stopper, Hewi article 520.70.1P and an additional wall hook without door stopper, Hewi article 520.60.1, color no. 97.				B 14
Product:	KEMMLIT			B 15
Type:	F-Primo 2.2			
Color:	RAL 9010 (closely)			B 16
Hardware:	VIELER			
Article no.:	ER.US.FBG3.522.R with inspection pane (red/white) and emergency pin opening			B 17
Alternative makes are:	BESTA ISALITH			
Article no. and color	see list of equal products color shade list		B 08 Page 197-198	B 18
Each latrine shall be equipped as follows:				B 19
with sanitary equipment	see		B 10	B 20
with heating	see		B 11	
with ventilation	see		B 12	

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

		SOURCE	
B 07.2.2.5	Shower cubicles in latrines:		B 01
B 07.2.2.5.1	Walls:		
Plastered with plaster MG PII, The walls shall be sealed room-high in the area of shower incl. water-proof connections to shower tub to be installed acc. to moisture stress class II and room-high tiled with tiles		DIN 18 550 T2 Mkbl ZDB	B 02
Format:	10 x 10 cm		B 03
Product:	V+B UNIT ONE		
Alternative makes are:	OSTARE AGROB BUCHTAL		B 04
Article no. and color	see list of equal products color shade list	B 08 Page 197-198	
			B 05
B 07.2.2.5.2	Floor:		
The shower cubicles shall be provided on the rough floor or rough slab with a first damp proofing level. Door passages shall be effectively sealed with angle rails of material 1.4301 (stainless steel) and damp proofing. See Fig. 07.6 , sealing acc. to moisture stress class II .			B 06
Each shower cabin shall receive cement screed. Sound insulation below the screed can consist of two layers of ETAFOAM. An effective damp proofing is considered to be more important than sound insulation. The screed including the wall joint shall be damp proofing acc. to moisture stress class II		Mkbl ZDB	
Damp proofing shall be raised on the wall min 15 cm above the screed (second damp proofing level).		Mkbl ZDB	B 07
Floor finish: tiles.			B 08
Format:	10 x 10		
Product:	V+B PRO ARCHITECTURA		B 09
Alternative makes are:	AGROB BUCHTAL		
Article no. and color	see list of equal products color shade list	B 08 Page 199-200	B 10
The outer row of the floor finish consists of flat cove base tiles. A permaelastic joint shall be provided between the cove base tile and above-grade wall tiles.			B 11
Flat cove base tile:			
Format:	10 x 10.3 cm		
Product:	V+B PRO ARCHITECTURA		B 12
Alternative makes are:	AGROB BUCHTAL		
Article no. and color	see list of equal products color shade list	B 08 Page 199-200	B 13
			B 14
			B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

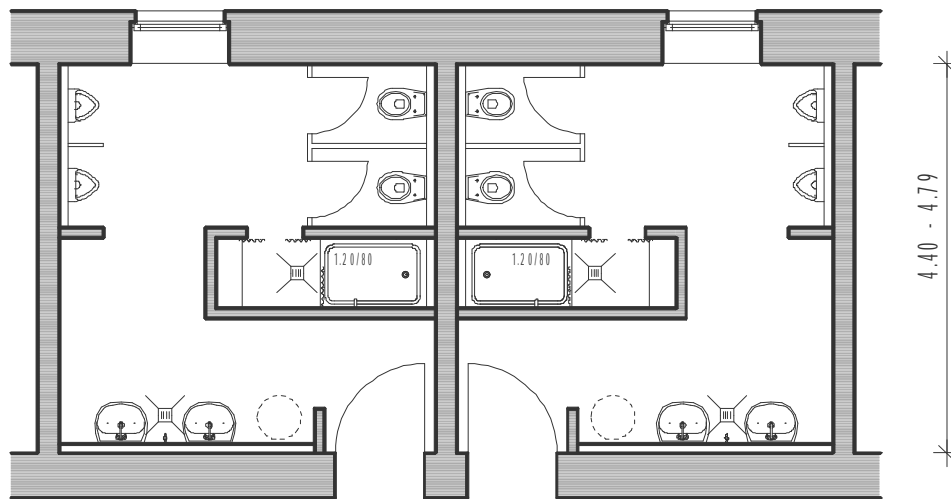
			SOURCE	
B 07.2.2.5.3	CEILINGS:			B 01
The ceiling shall be executed same as described in latrines.				
B 07.2.2.5.4	Equipment			B 02
Each shower cabin shall be equipped				
with sanitary items	see		B 10	
with ventilation	see		B 11	
ADDITIONALLY with:				B 03
Bench made of wood boards of hard wood 3 x transparent enamelled with an acid resistant DD enamel. Dry layer thickness at least 80 mü. One bottom rack made of square pipes of material 1.4301, surface grinding grain 240.				B 04
Height:	40 cm			
Depth:	35 cm			
Length:	acc. to existing space			B 05
Doors corridor/latrines	see		B 07.4.6	
Typical layouts for latrines see Fig. 07.13 – 07.15 next pages.				B 06
				B 07
				B 08
				B 09
				B 10
				B 11
				B 12
				B 13
				B 14
				B 15

DESIGN GUIDELINES

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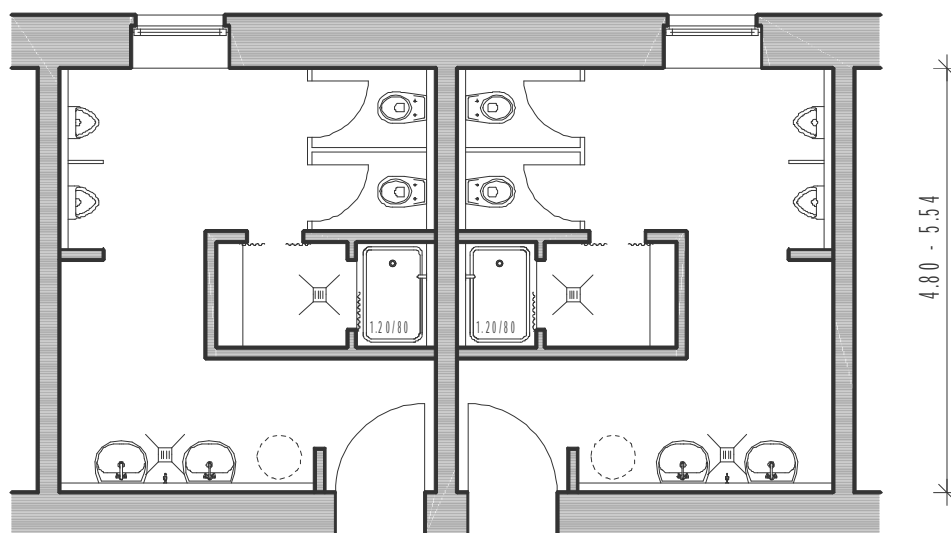
SOURCE

Fig. 07.13 Scheme layout – 4.40 - 4.79m



Layouts shall be arranged in accordance with the shown examples. Screens for wash basins and urinals shall be absolutely provided.

Fig. 07.14 Scheme layout 4.80 m – 5.54m



B 01

B 02

B 03

B 04

B 05

B 06

B 07

B 08

B 09

B 10

B 11

B 12

B 13

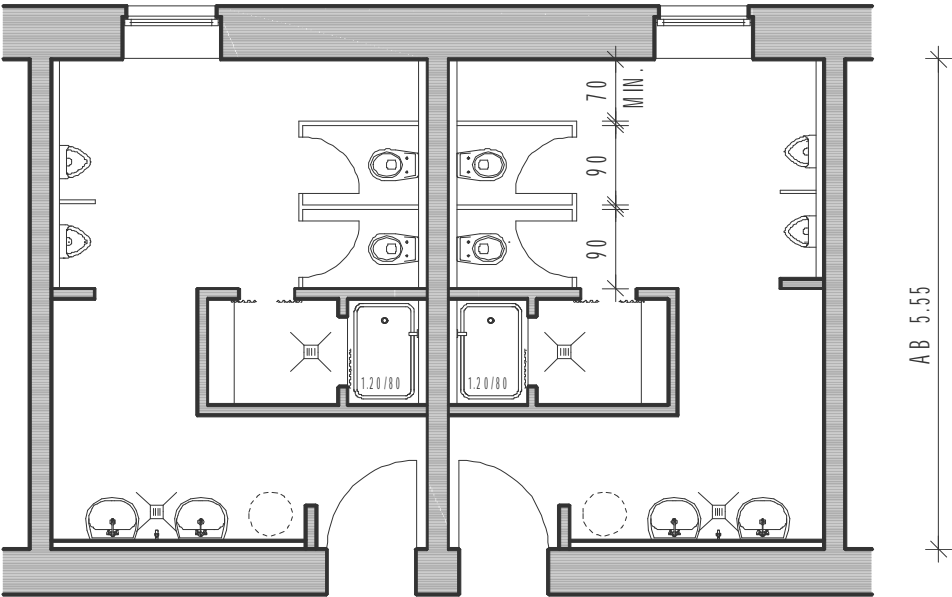
B 14

B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

Fig. 07.15 Scheme layout as of 5.55 m



SOURCE

B 01

B 02

B 03

B 04

B 05

B 06

B 07

B 08

B 09

B 10

B 11

B 12

B 13

B 14

B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

			SOURCE	
B 07.2.3	LAUNDRY			B 01
One washer and one dryer shall be provided per each 10 spaces.				
The equipment shall be erected on pads, with appropriate distance, from the wall as well as between each other – to prevent reciprocal heating.				B 02
B 07.2.3.1	Walls:			
Plastered with plaster MG P II			DIN 18 550 T2	B 03
and tiled room-high with tiles				
Format:	10 x 10 cm			B 04
Product:	V + B UNIT ONE			
Alternative makes are:	OSTARA AGROB BUCHTAL			B 05
Article no. and color	see list of equal products color shade list		Page 197-198	B 06
B 07.2.3.2	Floor:			
The laundry room shall have a first damp proofing level on unfinished floor or unfinished ceiling.				
and a sealing. Moisture stress class II			Mkbl ZDB	B 07
The floor shall be tiled.				
Skid resistance	R 10.		Mkbl ZH 1/571	B 08
The floorings consist of tiles.				
Size:	15 x 15 cm			
Product:	V + B MAXI-FLOOR-COMMERCIAL			B 09
Alternative makes are:	OSTARA AGROB BUCHTAL			
Article no. and color:	see list of equal products color shade list		B 08 Page 199-200	B 10
Equipment pad:				
The entire equipment pad of reinforced concrete, surface with 1 % slope, entirely covered with tiles. All joints towards floor and walls shall be filled permaelastically.				B 11
Height of pad:	min. 10 cm			B 12
Depth:	as required by equipment dimension however, at least acc. to standard design			
B 07.2.3.3	Ceilings:			B 13
Plastered with plaster MG PII, surface felted and 2 x painted with				
paint material and color	see		B 08	B 14
B 07.2.3.4	EQUIPMENT			
Washers and dryers shall be U.S. Government furnished , installed, connected and put-in operation.				B 15

DESIGN GUIDELINES

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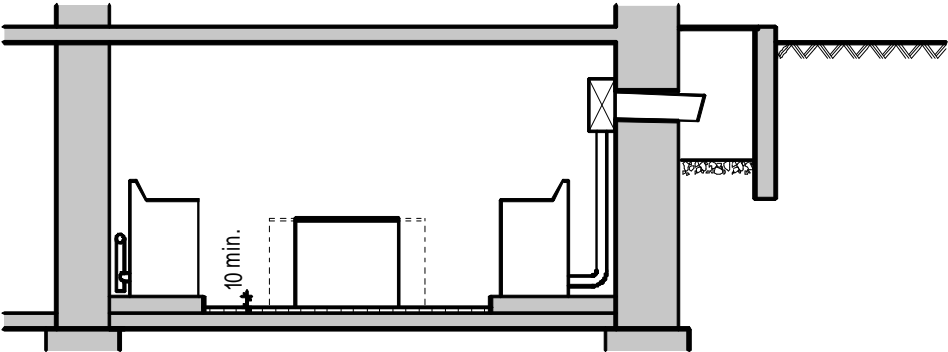
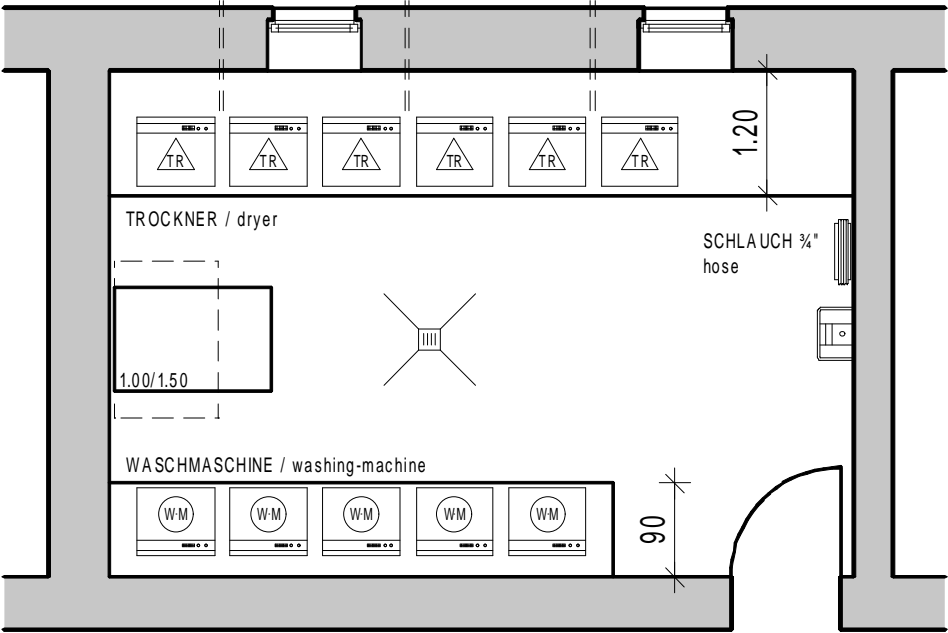
			SOURCE	
B 07.2.3.4.1 Washers and Dryers: (present dimensions)				B 01
Dimensions:				
Width:	71 cm			
Depth	73 cm			
Height	1.18 m			B 02
Wall clearance	min. 20 cm			
B 07.2.3.4.2 Laundry table:				B 03
One laundry table shall be provided for 5 each washers and dryers.				
Dimensions:				
Width:	1.00 m			
Depth	1.50 m			B 04
Height	0.75 m			
Racks of tables shall be constructed of square pipes with synthetic legs				
Dimensions	30/30/2.6 mm			
Material	1.4301			B 05
The laundry table consists of multiplex boards (workbench boards)				
Thickness	50 mm			
Glueing	BFU 100			B 06
screwed to the table rack; table top edges are rounded at all sides, coated twice with stair sealant.				
Tables shall be fastened on the wall, not on the floor.				B 07
B 07.2.3.4.3 Equipment				
Each laundry room shall be equipped				
with sanitary facility	see		B 10	
with heating	see		B 11	B 08
with ventilation	see		B 12	
Doors see			B 07.4.6	
Windows	see		B	B 09
				B 10
				B 11
				B 12
				B 13
				B 14
				B 15

DESIGN GUIDELINES

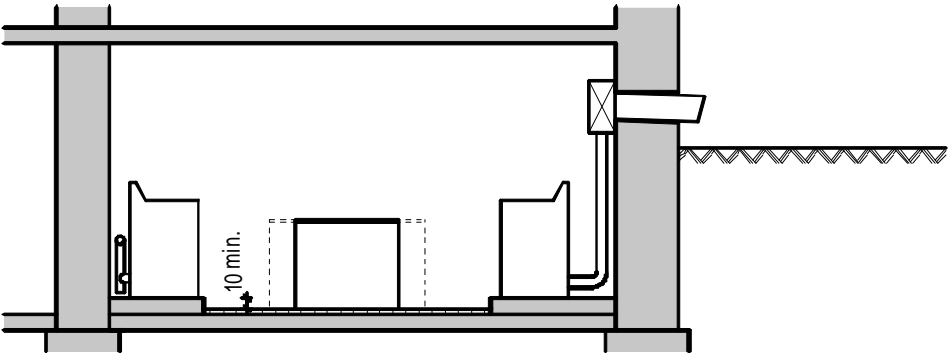
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SOURCE

Fig. 07.16 Laundry room



Abströmende Luft / Schacht
outgoing air / shaft



Abströmende Luft / Direkt
outgoing air / direct

B 01

B 02

B 03

B 04

B 05

B 06

B 07

B 08

B 09

B 10

B 11

B 12

B 13

B 14

B 15

DESIGN GUIDELINES

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SOURCE		
<p>B 07.2.4 ARMS ROOM (for small arms) Arms rooms shall be in conformance with the following DoD 5100-76 M Design Criteria. Existing building structures in conformance with the Manual For Safety of Sensitive Conventional Arms, Ammunition and Explosives, shall not be renovated, unless HQ USAREUR/7a ODSSENGER has determined, that the existing structural condition of arms room (for instance walls, ceilings, roofs, floors and doors) do not offer equivalent or better protection. This must be coordinated with USAREUR upon commencement of design.</p> <p>Protection of arms rooms shall meet at a minimum the criteria listed below:</p> <ul style="list-style-type: none"> - Break-thru resistance - Projectile resistance - Bullet resistance - Protection against unauthorized access (increased protection) <p>Arms rooms can be constructed according to (Fig. 07.17 – 07.19). The accomplishment shall be determined with HQ USAREUR/7a upon commencement of design.</p> <p>B 07.2.4.1 Walls: Walls consist of reinforced concrete B 25, min. 20 cm thick, reinforced with structural steel bars diameter 12 mm with e = max. 12 cm centrally staggered in each position, providing a net of approx. 12/12 cm or of a 24 cm thick concrete block wall with reinforcing bars, diameter 12 mm, vertically filled with mortar or concrete in horizontal joins and through brick voids.</p> <p>B 07.2.4.2 Ceilings and/or roofs: The distance between reinforcing bars should be selected to provide a net with no opening larger than 12/12 cm. Reinforcing bars should be 12 mm in diameter or larger.</p> <p>Slabs and/or roofs of existing facilities should be provided with the same degree of safety as the walls or it should be comparable with the degree of safety of windows and/or doors.</p> <p>B 07.2.4.3 Floors: Floors, if erected on soil, shall consist of concrete structures of not less than 20 cm thickness, reinforced with 6 x 6 inch structural steel mats or appropriate reinforcing bars. Where the floor slab serves as ceiling for a room or an area underneath, the ceiling standards apply, minimum thickness 25 cm.</p> <p>B 07.2.4.4 Interior Equipment of Arms Rooms: Inserted lugs in wall for safety chains. Lugs shall be able to resist a tensile force of 228 kg. Lugs shall be installed in distances acc. to standard plan from corners towards the middle of the wall or the wall section, 92 cm distance to the floor. Not less than one lug per wall or wall section. Lug spacing max. 1.80 m among each other.</p> <p>Two recessed lugs for safety chains shall be installed approximately in the middle axle of free floor space. The lug should be able to resist a tensile force of 230 kg. (Installation acc. to standard layouts).</p>		B 01
	DOD 5100-76-M	B 02
		B 03
		B 04
		B 05
		B 06
		B 07
		B 08
		B 09
		B 10
		B 11
		B 12
		B 13
		B 14
		B 15

DESIGN GUIDELINES

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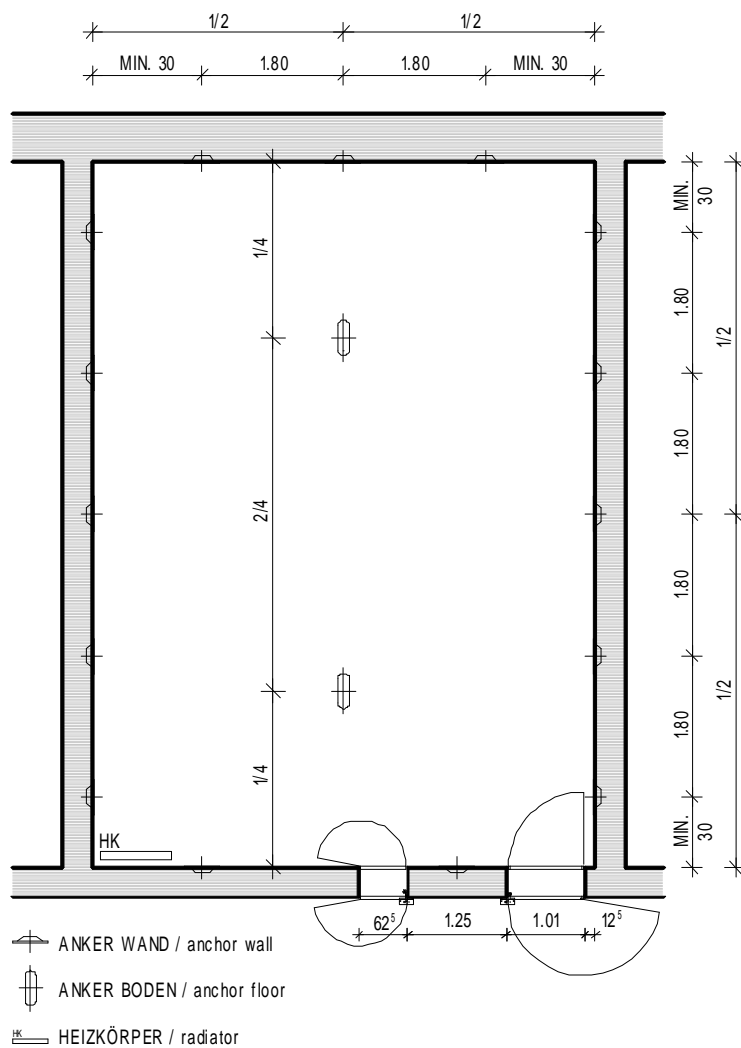
			SOURCE	
B 07.2.4.5	Windows and Other Openings:			B 01
Arms rooms shall be installed without windows.				B 02
If windows and other openings are existing, which cannot be closed, they shall be protected e.g. with steel shutters, material in resistance class comparable with adjacent walls.				B 03
B 07.2.4.6	Window Grilles, Outside:			B 04
Steel bars of 14 mm diameter and more, vertical bars spaced at max. 10 cm intervals and horizontal bars at max. 20 cm intervals. Horizontal bars shall be welded on vertical bars, obtaining openings of max. 0.02 m ² or 1.7 mm thick coal-manganese steel mesh with 5 cm diamond grill.				B 05
Bars or steel mesh shall be firmly bedded in the substructure of the building or welded on a steel frame to be fastened on the wall rendering the fastening elements inaccessible from outside the arms room.				B 06
B 07.2.4.7	Supply air from corridor:			B 07
The arms rooms will be provided in building by the corridor wall with at least 2 supply air openings in angled shape. On corridor side with a grid, mesh width 10/10 mm, closed, on room side fire protection plate valves, at least fire resistance class (F 30) .				B 08
B 07.2.4.8	Special requirements			B 09
Joint intrusion alarm system (J-SIDDS, also IDS).				B 10
J-SIIDS shall be connected at the alarm system or the monitoring system in the Military Police (MP) Station and in some cases at the Battalion Headquarter.				B 11
Doors	see	B 07.4.8		B 12
Service counter	see	B 07.4.8		B 13
				B 14
				B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

SOURCE

Fig. 07.17 Arms room type “A”



Installation of wall anchor = axis 0.92 m above finished floor. This information applies for all types.

B 01

B 02

B 03

B 04

B 05

B 06

B 07

B 08

B 09

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B 11

B 12

B 13

B 14

B 15

DESIGN GUIDELINES

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SOURCE

Fig. 07.18 Arms room type "B"

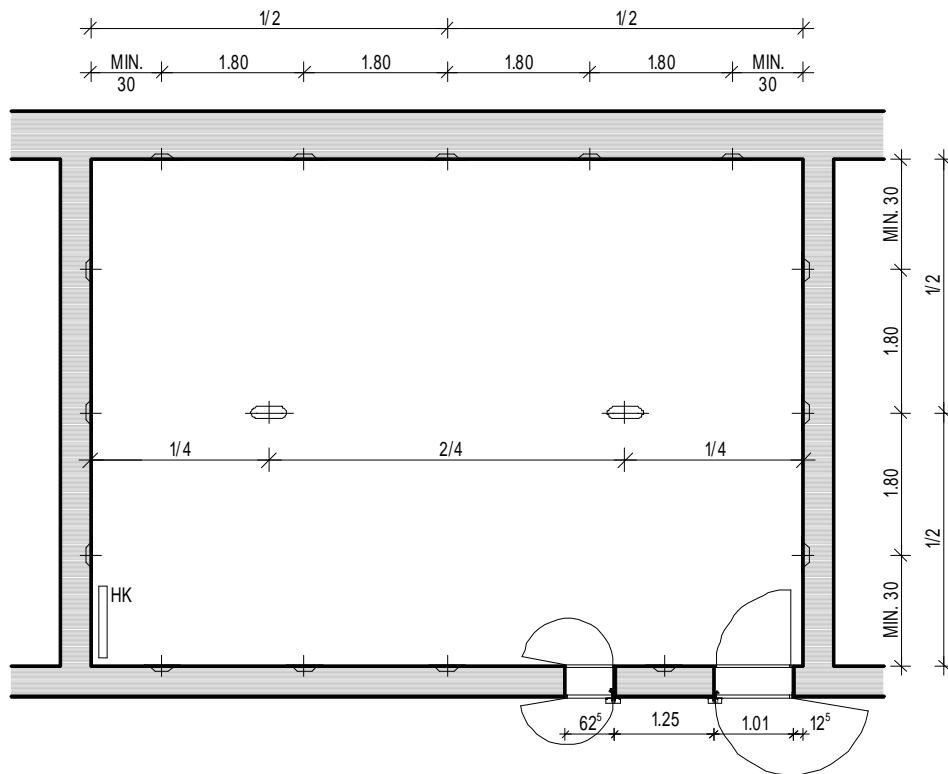
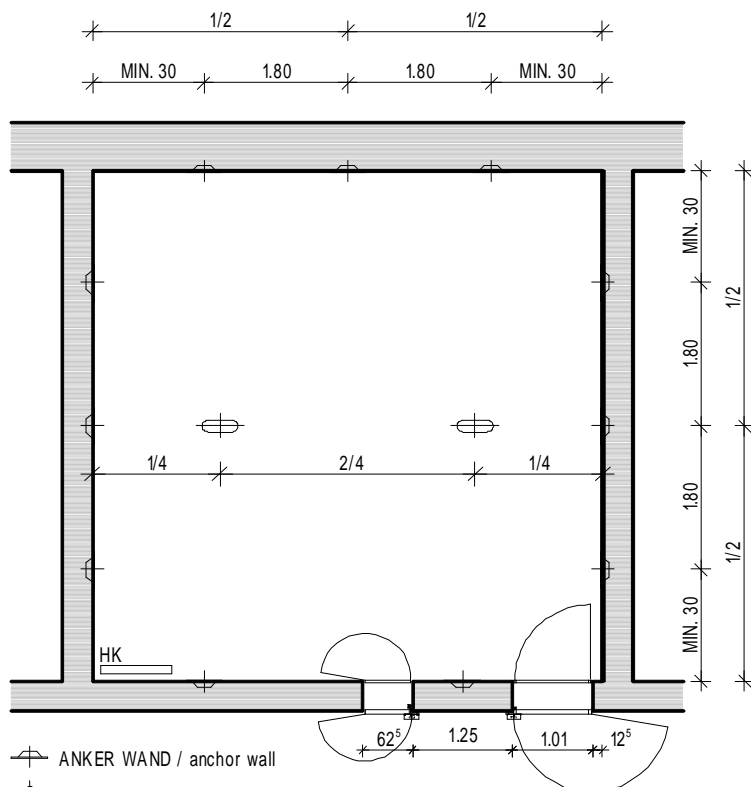





Fig. 07.19 Arms room type "C"



-  ANKER WAND / anchor wall
-  ANKER BODEN / anchor floor
-  HEIZKÖRPER / radiator

B 01

B 02

B 03

B 04

B 05

B 06

B 07

B 08

B 09

B 10

B 11

B 12

B 13

B 14

B 15

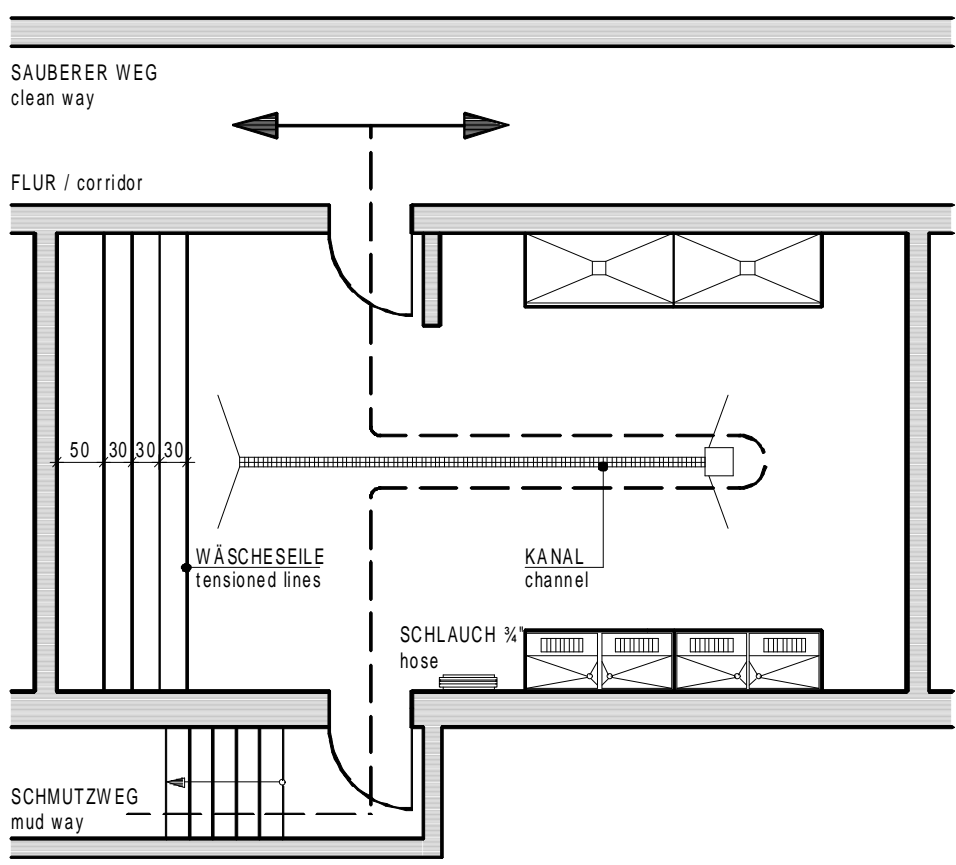
DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

			SOURCE	
B 07.2.6	MUD ROOM:			B 01
The mud room shall be arranged in such a manner that it has a direct access to the outside or located directly near a stairwell having an access to the outside. The room shall be provided with windows. The compulsory way shall be such, that the access must be from outside (mud way). It must be possible to obtain access from the clean area directly into the building (clean way). If the access is leading via a stairwell, the entrance door shall be located as near as possible to the stairwell.				B 02
B 07.2.5.1	Walls:			B 03
Plastered, with plaster MG P II tiled at full room height with tiles			DIN 18 550 T2	B 04
Format:	10 x 10 cm			
Product:	V + B UNIT ONE			B 05
Alternative makes are:	OSTARA AGROB BUCHTAL			
Article no. and color	see list of equal products color shade list		B 08 Page 197-198	B 06
The joint between the reinforced concrete slab and wall tiles shall be filled permaelastically.				B 07
B 07.2.5.2	Floor:			
Reinforced concrete floor with slope towards drain gutter. Surface upon admixture of hard aggregate grain – min. 15 kg/m ² (= 1 cm wear course) – smoothed surface, skid resistance R 10			Mkbl ZH 1/571	B 08
B 07.2.5.3	Ceilings:			
Plastered with plaster MG PII and painted 2 x			DIN 18 550 T2	B 09
Paint material/color:	see		B 08 Page 197-198	B 10
B 07.2.5.4	Equipment:			
Wash tub made of stainless steel				
Quantity min.	2 ea			
Quantity max.	4 ea			
Wall mounted brush	see		B 10.5.9	
Cold and warm water (60°C)	see		B 10	B 11
Cast stone sinks				
Quantity min.	2 ea			
Quantity max.	4 ea			B 12
Fittings for cold and warm water	see		B 10	
Ventilation	see		B 12	B 13
Each mud room contains clothes lines – from wall to wall –				
1. line	50 cm wall clearance			
all other lines	30 cm distance			
Material thickness	4 mm			B 14
Material	stainless steel 1.4301 plastic coated			B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

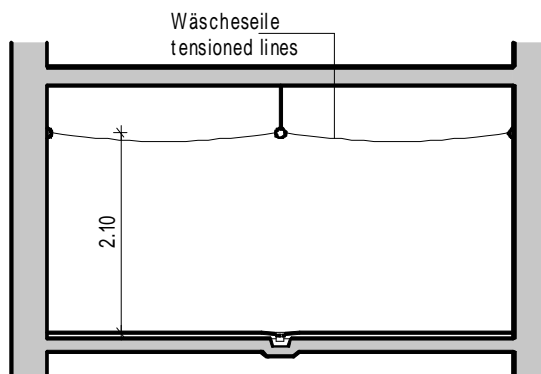
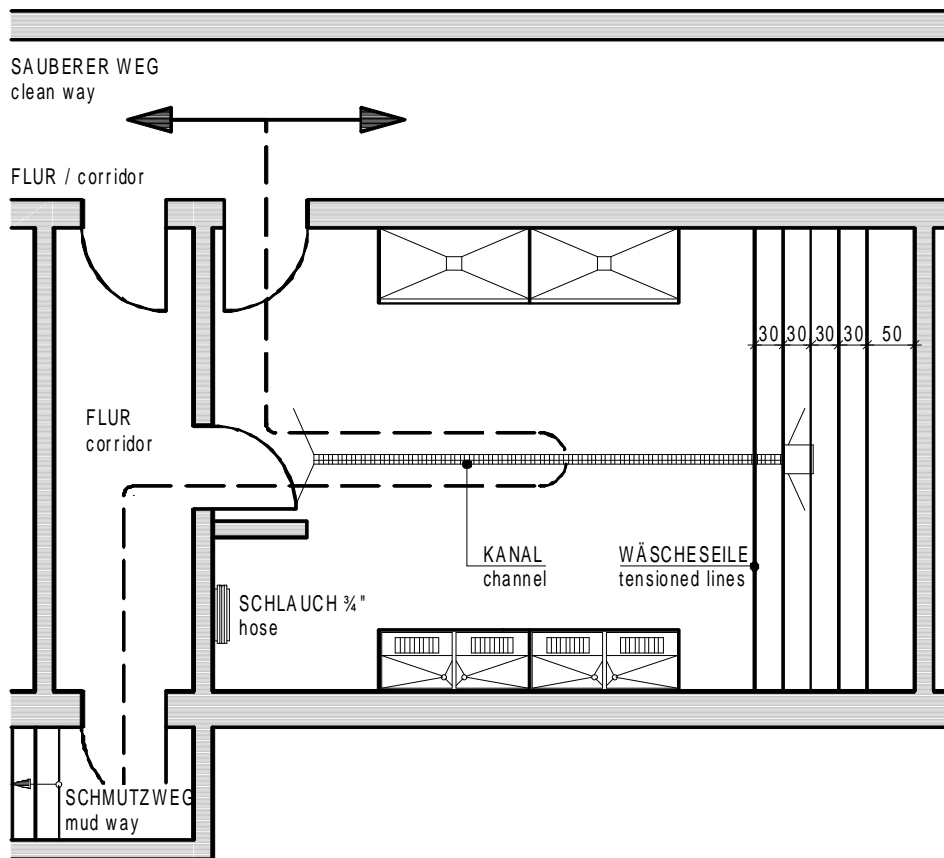
			SOURCE	
ACCESSORIES:				B 01
Ring with snap hook, wall hooks made of material and dowels	stainless steel 1.4301			B 02
Product	HILTI			B 03
Article	HKD, M 8			B 04
Material	stainless steel 1.4301			B 05
Turnbuckle on one side made of material	stainless steel 1.4301			B 06
In case of a tensioned length of over 3 m, the clothes line shall be additionally fastened on the ceiling in the middle of the room with a threaded rod and a ring lug made of material				B 07
	stainless steel 1.4301			B 08
Doors	see		B 07.4	B 09
Windows	see		B 07.4.11	B 10
Fig. 07.20 Mud room type 1				B 11
				B 12
				B 13
				B 14
				B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

SOURCE

Fig. 07.21 Mud room type 2



SNITT
section

B 01

B 02

B 03

B 04

B 05

B 06

B 07

B 08

B 09

B 10

B 11

B 12

B 13

B 14

B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

		SOURCE	
B 07.2.6	OFFICE AND/OR STORAGE ROOMS		B 01
All remaining rooms in the basement shall be finished as offices and/or storage rooms.			B 02
Floor height: top edge finished floor of rooms shall be lowered by 1 cm compared to top edge corridor floor.			B 03
B 07.2.6.1	Walls:	DIN 18 550 T2	
Plastered with plaster MG PII, surface smoothened and painted 2 x			B 04
Paint material/color:	see color schedule	B 08 Page 197-198	
B 07.2.6.1.1	Picture Rails:		B 05
Picture rails shall be installed on the walls			
Type and installation as described in B 07.1.1.2			
See Fig. 07.2		B 07.1.1.2 Page 76	B 06
B 07.2.6.2	Floor:		
The existing reinforced concrete floors shall be removed and replaced with new floors. See		B 07.2	B 07
Floors shall be finished with split clinker flags.			
Product:	AGROB BUCHTAL		
Article:	Series Quantum		B 08
Format:	25 / 12.5 cm		
Thickness:	8 mm		
Alternative makes:	GAIL		B 09
Article no. and color	see list of equal products color shade list	B 08 Page 199-200	
The outer row of the floor finish consists of flat cove base tiles. A permaelastical joint shall be provided between the cove base tile and above-grade wall tiles.			B 10
Flat cove base tile:			B 11
Format:	25 / 12.5 cm		
Product:	AGROB BUCHTAL		
Alternative makes are:	GAIL		B 12
Article no. and color	see list of equal products	B 08 Page 199-200	
A base made of same split liner flags shall be provided above the cove base tile at wall.			B 13
Height approx.	12.5 cm		
The joint between cove base tile and floor base shall be separated, this joint shall be filled permaelastically.			B 14
			B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

		SOURCE	
B 07.2.6.3	Ceilings:		B 01
Suspended ceiling structure, open metal system, white coating, removable panels.			B 02
Wall connection with dummy joint no. 56 – see pamphlet 16/OWAcoustic.			
Suspension system: metal substructure, galvanized, hangers shall be Nonius hangers only, or equivalent products.			B 03
Standard grid	62 ⁵ x 62 ⁵ cm		
Panel thickness:	20 mm		
Product:	OWAcoustic		
System:	S 15		
Construction material class:	A 2		B 04
Alternative makes are:	LINDNER WILHELM		
Article no. and color	see list of equal products color shade list	B 08 Page 201	B 05
			B 06
NOTE to installation height of suspended ceilings:			
The suspended ceilings shall be installed as high as possible, in any case directly underneath lines located above. Clear minimum height 2.14 m.			B 07
Suspended ceilings can be renounced in exceptions, if the clear heights become too low. This shall be determined with HQ USAREUR upon commencement of design. The ceilings shall be then plastered with plaster MG PII, surface smoothened.		DIN 18 550 T2	B 08
All light fixtures shall be installed in suspended ceilings. Sprinkler heads shall be provided with basket protectors. Slopes or recesses shall be provided in the area of the windows so that the windows can be opened for ventilation.			B 09
Doors	see	B 07.4	
Windows	see	B 07.4.11B	B 10
			B 11
			B 12
			B 13
			B 14
			B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

		SOURCE	
B 07.2.7	CORRIDORS IN BASEMENT		B 01
B 07.2.7.1	Walls		
Plastered with plaster MG II			B 02
The wall areas on top of tile shall be plastered up to ceiling flush with tiles, surface smoothened and tiled vertical up to top edge door jamb, top row horizontal tiled:			
Tile finish of split clinker flags, glazed, up to top edge door jamb.			B 03
Format:	25 / 12.5 cm		
Thickness:	8 mm		
Product:	AGROB BUCHTAL		B 04
Article:	Series CHROMA		
Alternative makes:	GAIL		
Article no. and color	see list of equal products color shade list	B 08 Page 197-198	B 05
Picture boards:		B 07	
Picture boards shall be installed on entire length on both sides of corridors between door jambs		Page 76 + 100	B 06
The dimensions and accomplishment same as shown in Fig. 07.2 page 76 and Fig. 07.12 , page 100, however, height shall correspond to width of top tile row.			
At least 500 ea hooks shall be provided for each project.			B 07
B 07.2.7.2	Floors:		
Existing concrete floors shall be removed. New floor compositions shall be executed as follows from bottom to top:			B 08
PE-foil	0.4 mm thick, overlapping		
Reinforced concrete slab	thickness acc. to statics		B 09
Damp proofing against rising moisture acc. to DIN 18 195, the designer shall select the load case acc. to local conditions, however, at least sealing acc. to load case "non-pressurized water" shall be performed.		DIN 18 195 Part 4	
			B 10
Cast stone covering installation in mortar bed with recipe installation mortar of MG III, acc. to DIN 1053-1		DIN 1053-1	
Format:	30 / 30 cm		B 11
Product:	DASAG		
Hardness class:	I		
Alternative makes are:	REOLIT GmbH, Betonwerkstein/ Naturstein BUSSE Marmor- und Betonwerke GmbH BAUSTOFFWERK Unterfahlheim		B 12
Article no. and color	see list of equal products color shade list	B 08 Page 199-200	B 13
Door thresholds of one piece without joint, adjusted in door niche			B 14
Product:	DASAG		
Hardness class:	I		B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

			SOURCE	
Alternative makes are:	REOLIT GmbH, Betonwerkstein/ Naturstein BUSSE Marmor- und Betonwerke GmbH BAUSTOFFWERK Unterfahlheim			B 01
Article no. and color	see list of equal products color shade list		B 08 Page 199-200	B 02
Base: of natural stone, granite installed flush with wall, glued in Buttering-Floating-method . Height adapted to remaining difference from wall finishes (see B 07.1.6.1).				B 03
Height:	24 cm			B 04
Width:	24.5 cm			
Thickness min.	10 mm, material calibrated			
Product	Bianco Cristallo			B 05
Article no. and color	see list of equal products color shade list		B 08 Page 197-198	
All floors shall be installed in accordance with DIN 18 022, Line 4 with reference to evenness. Contrary to VOB/C DIN 18 333 finishes shall be installed with increased accuracy. Height difference (acc. to DIN 18 333, para. 3.1.2) between adjacent slabs is not acceptable .			DIN 18 022	B 06
			DIN 18 333 digit 3.1.2	B 07
B 07.2.7.3 Ceilings:				
The ceilings shall be directly plastered with plaster MG PII and painted 2 x. The installations shall be installed visible, orderly underneath the ceiling.				B 08
Doors in office/storage rooms	see		B 07.4.6	
Doors in front of electrical distributors	see		B 07.4.10	B 09
Doors to stairwells	see		B 07.4.9	
Doors in latrines	see		B 07.4.6	
				B 10
				B 11
				B 12
				B 13
				B 14
				B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

		SOURCE	
B 07.3	ATTIC		B 01
If BEDROOMS / bathrooms will be improved in attic, these shall be accomplished acc. to criteria same as described in digit B 07.1.1.		see	B 02
B 07.3.1	GAME ROOM IN ATTIC:		B 03
The game room shall be equipped with windows to allow cross ventilation.			B 04
It must be possible to install the following equipment in the game room, appropriate minimum distances to walls and or roof slopes shall be observed:			B 05
- Table tennis board			B 06
- Billiard table			B 07
- additionally			B 08
- Gambling machines, different sizes or (2 ea)			B 09
- Table soccer			B 10
B 07.3.1.1	Walls		B 11
Plastered with plaster MG P II, surface smoothened and painted 2 x		DIN 18 550 T2	B 12
paint material and color		see color schedule	B 13
B 07.3.1.1.1	Picture Rails		B 14
Picture rails shall be installed on the walls.			B 15
Type and installation same as described in B 07.1.1.2			B 16
See Fig. 07.02		B 07.1.1.2 Page 76	B 17
B 07.3.1.2	Floor:		B 18
The floor construction with floating cement screed, it shall be covered with a 4 mm thick rubber covering with an elastic subbase.			B 19
Joints shall be pointed with a thermal cord.			B 20
Product:	FREUDENBERG		B 21
top course, synthetic rubber:	norplan stone no. 149		B 22
Article:	4 mm thick courses		B 23
	noraplan stone elastic, 20 dB		B 24
Alternative makes are:	SAARGUMMI		B 25
	DUNLOPLAN		B 26
Article no. and color	see list of equal products	B 08 Page 199-200	B 27
	color shade list		B 28
B 07.3.1.3	Baseboards:		B 29
Baseboards made of solid wood		see Fig. 07.1	B 30
Finished baseboards shall be painted with mass color;		B 07.1.2.2 Page 76	B 31
Paint material and colors		see color schedule	B 32
		B 08 Page 197-198	B 33
			B 34
			B 35

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

			SOURCE	
B 07.3.1.4 Ceilings				B 01
Construction fire rating F 60 , plastered or made of gypsum plasterboards and painted 2 x.				
Material and color	see color schedule		B 08 Page 201	B 02
Furniture:				
This furniture will be U.S. Government furnished and installed.				B 03
Table tennis board:				
Width	1.52 ⁵ m			
Length	2.73 m			
Height	0.76 m			B 04
Basic area to be planned (movement area to be observed!)	6.00 x 12.00 m			
Billiard table:				B 05
Width	1.25 m			
Length	2.25 m			
Height	0.66 m			
Basic area to be planned (movement area to be observed!)	4.00 x 5.00 m			B 06
Doors:	see		B 07.4.4	B 07
Windows:	see		B 07.4.11	
				B 08
				B 09
				B 10
				B 11
				B 12
				B 13
				B 14
				B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

		SOURCE	
B 07.3.2	LATRINES - ATTIC		B 01
The latrines shall be separate for women and men. They shall be provided with windows for a standard ventilation and lighting.			B 02
Latrine design in the attic shall be analogous to latrine facilities in basement. See Fig. 07.13 – Fig. 07.15 , however, without shower cabins.		B 05.1.3	B 03
B 07.3.2.1	Walls:	DIN 18 550 T2	B 04
Plastered with plaster MG P II room-high tiled with tiles			B 05
Format:	10 x 10		B 06
Product:	V+B UNIT ONE		B 07
Alternative makes are:	OSTARA AGROB/BUCHTAL	B 08 Page 197-198	B 08
Article no. and color shade:	see list of equal products - color shade list		B 09
B 07.3.3.	Floor:		B 10
The floors shall be provided on the rough floor or rough slab with a first damp proofing level. Door passages shall be effectively sealed with angle rails of material 1.4301. See Fig. 07.6			B 11
Sealing acc. to moisture stress class II		Mkbl ZDB	B 12
Each latrine shall receive cement screed. Sound insulation below the screed can consist of two layers of ETAFOAM. An effective damp proofing is considered to be more important than sound insulation. The screed including the wall joint shall be sealed acc. to moisture stress class II		Mkbl ZDB	B 13
Damp proofing shall be raised on the wall min 15 cm above the screed (second damp proofing level).			B 14
The floor finish consists of tiles.			B 15
Format:	10 x 10		B 16
Product:	V+B PRO ARCHITECTURA		B 17
Alternative makes are:	AGROB/BUCHTAL	B 08 Page 199-200	B 18
Article no. and color shade:	see list of equal products - color shade list		B 19
Flat cove base tile: the outer row of the floor finish consists of flat cove base tiles. A permaelastic joint shall be provided between the cove base tile and above-grade wall tiles.			B 20
Format:	10 x 10.3 cm		B 21
Product:	V+B PRO ARCHITECTURA		B 22
Alternative makes are:	AGROB/BUCHTAL	B 08 Page 199-200	B 23
Article no. and color shade:	see list of equal products - color shade list		B 24
			B 25

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

			SOURCE	
B 07.3.2.4	Ceilings:			B 01
	Space conditions permitting, a suspended aluminum ceiling structure shall be installed without insulation layer, incl. all structures below and above. Only Nonius hangers shall be used.			B 02
	Step angle sections shall be provided at transitions from wall to ceiling.			
	Mounting height (minimum height) approx. 2.20 m above completed floor level, minimum height shall not be less than 2.15 m.			B 03
	Panel shape: F			
	Panel height: 12 mm			
	Panel width: 84 mm			B 04
	Module: 100 mm			
	Type: aluminum, perforated			
	Perforation: B-perforation rate 22%, diameter 1.0 mm			B 05
	Product: RICHTER			
	System: 16.1			
	Alternative makes are: LINDNER			B 06
		GRÜNZWEIG UND HARTMANN		
	Article no. and color	see list of equal products	B 08 Page 201	
		color shade list		B 07
B 07.3.2.2	Latrine Partitions / Privacy Walls:			B 08
	Lightweight partitions, suspended (without feet) with plastic lamination all around. All aluminum parts with powder coating or made of material 1.4301 surface grain 240. Corner solutions shall be supported with legs at corner.			
	Product: KEMMLIT			B 09
	Type: F-Primo 2.2			
	Color: RAL 9010 (closely)			
	Hardware: VIELER			
	Article no.: ER.US.FBG3.522.R			B 10
		with inspection pane (red/white) and emergency pin opening		
	Alternative makes are: BESTA			B 11
		ISALITH		
	Article no. and color	see list of equal products	B 08 Page 197-198	
		color shade list		B 12
B 07.3.2.5	Equipment:			
	Each latrine shall be equipped as follows:			B 13
	with sanitary equipment	see	B 10	
	with heating	see	B 11	
	with ventilation	see	B 12	
	Entrance doors	see	B 07.4.4	B 14
	Windows	see	B 07.4.11	
				B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

		SOURCE	
B 07.3.3	STORAGE BIN ROOMS ATTIC		B 01
Luggage storage bin rooms in the attic shall be arranged as shown on drawings Fig. 07.22 . Arrangement along corridor walls shall be given preference.		AR 190-51	B 02
The floor finish shall be placed prior to erection of storage bins. Base point structures under the columns shall be used for provision of an adequate pressure distribution (depressions are to be prevented). Posts shall be fastened through the base structure with screws and dowels. Future dismantling allows punching and glueing of drilling holes without having to remove the finish.			B 03
B 07.3.3.1	Walls:		B 04
Flush plastered surface with paint finish.			
Material and color	see color schedule	B 08 Page 197-198	B 05
B 07.3.3.2	Floor:		
Composite screed			
Rubber finish	2 mm thick courses		B 06
Joints shall be pointed with thermal cord.			
Product:	FREUDENBERG		
Article:	noraplan stone dolomit 1162		B 07
Alternative makes are:	SAARGUMMI DUNLOPLAN		
Article no. and color	see list of equal products color shade list	B 08 Page 199-200	B 08
B 07.3.3.2.1	Baseboards:		
Baseboards made of solid wood (horizontal execution) see Fig. 07.1		B 07.1.2.2 Page 76	B 09
Finished baseboards shall be painted with mass color;			
Paint material and colors	see color schedule	B 08 Page 197-198	B 10
B 07.3.3.3	Storage Bin Rooms (Soldier's Luggage):	STPL A3 001 00G A3 002 00G	B 11
Side and front walls of storage bin rooms shall have ceiling height.			
Each storage bin will be provided with a door with following minimum dimensions:			
Width	1.00 m		
Height	2.125 m		B 12
The door shall be equipped with a hasp for placing of padlock; hasp made of stainless steel 30/60/3 mm, the spacing between cover plates shall be only 2 mm, the cover plates shall have a perforated drilling of 13 mm diameter.			
Padlocks shall not be furnished.			B 13
Construction:			
The bearing construction of storage bin room walls consist of square pipes (telescopic pipes) 40/40/2.0 mm with head and base panels, these area fastened on floor and ceiling.			B 14
Maximum distance of support distances 1.25 m.			B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

SOURCE		
<p>Door construction:</p> <p>The door construction made of square steel pipes with angle crossbars and bracings.</p> <p>Doors shall be equipped with at least three hinges; hinge pins shall be secured against lifting with cams.</p> <p>The entire stud wall construction incl. door facility will be planked vertical with trapezoidal plates.</p> <p>Distance of frame to ceiling and floor 3 cm, for cross ventilation.</p> <p>The entire construction shall be provided with painting.</p> <p>All fastening agents such as rivets, screws, bolts etc. shall be installed in such a manner that they are inaccessible from outside and/or cannot be dismantled.</p>		B 01
		B 02
		B 03
		B 04
		B 05
<p>B 07.3.3.4 Ceilings</p> <p>Plastered with a plaster MG PII, or gypsum plasterboard covering</p> <p>Fire rating F 60</p> <p>and painted 2 x</p> <p>Paint material and color see color schedule</p>	<p>DIN 18 550 T2</p>	B 06
<p>Arrangement suggestion of storage bin rooms Fig. 07.22 see next page.</p>	<p>B 08 Page 201</p>	B 07
<p>Accomplishment of entire storage bin rooms acc. to standard plan.</p>	<p>STPL NO. A3 001 00G A3 002 00G</p>	B 08
<p>B 07.3.4 Janitor's closet</p> <p>The janitor's plaster room shall be accomplished in improvement same as the janitor's closets on floors. Only one rack shall be installed. see B 07.1.4.</p>	<p>Page 85-86</p>	B 09
<p>B 07.3.5 Room for telephone</p> <p>The room for telephones shall be improved same as the game room. see B 07.3.1.</p>	<p>Page 124</p>	B 10
		B 11
		B 12
		B 13
		B 14
		B 15

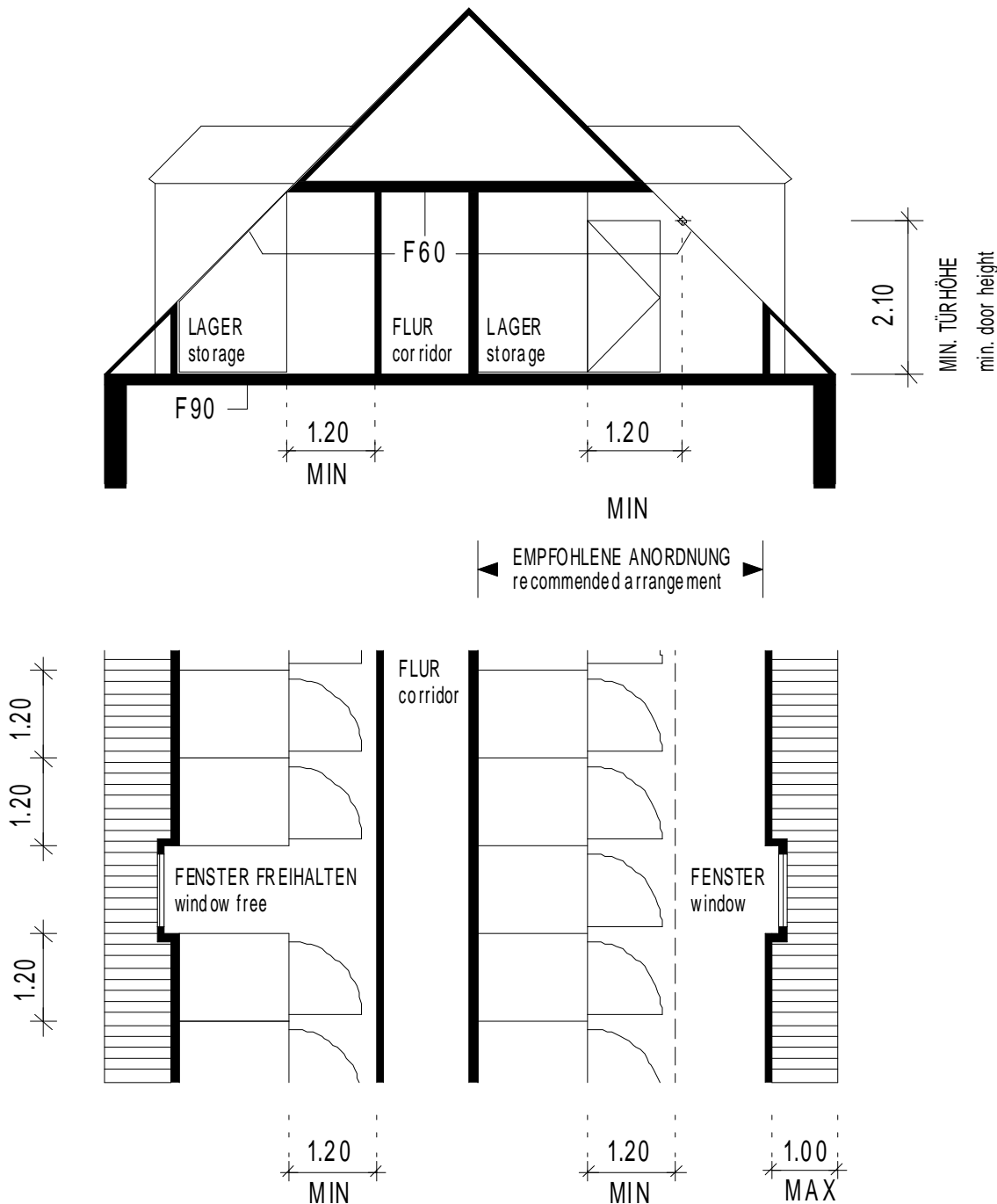
DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

SOURCE

Preferred arrangement of bins along the interior building wall.

Fig. 07.22 Storage / attic



DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

		SOURCE	
B 07.4	BUILDING ELEMENTS		B 01
B 07.4.1	DOOR SYSTEMS		
B 07.4.2	Door systems general		B 02
Doors and door systems shall be performed acc. to criteria described and depicted below.			
Required are construction supervisory allowed door systems and door systems whose door leaves are installed acc. to a construction supervisory allowance.			B 03
All fire doors shall have a construction supervision permit. Locks and hardware in fire doors must be approved as per DIN for the fire door. Installation of doors shall accurately be performed in accordance with manufacturer's installation requirements and the manufacturer's respective construction supervision approval. If this is not the case, the door elements lose its certification and the identification plate becomes invalid.			B 04
			B 05
The approval plate must be attached on each construction supervisory door system. A special type plate analog to construction supervisory allowance shall be attached on each door system, whose door leaf is constructed acc. to a construction supervisory allowance. Accomplishment and text see single description of door systems.			B 06
Following will be installed:			B 07
in basement all doors from corridors to stairwells on all floors, all doors of fire and smoke section divisions on all floors as steel door systems acc. to following listed single descriptions, all further door systems on floors as wood door systems with steel jambs – except wet rooms – these shall be equipped with synthetic door systems and an aluminum jamb.			B 08
Single descriptions of door systems		Page 136-165	
Doors and door systems shall be provided with lockings listed in door list – locking – construction type. (Fig. 07.23)		Page 134-135	B 09
SAFLOK-Electronic Key Locks (doors with magnetic card – locking system) shall be provided with an approval certificate, approval for this combined system (door and lock).			B 10
The magnet card locking system shall additionally bear the UL-approval stamp (Underwriters Laboratory)		U/L	B 11
The key system card shall be programmed by a computer. Programming shall be by the lock manufacturer and/or supplier, who also has to install the locks.			B 12
The above described services shall be procured as part of the project.			
Manufacturer and/or supplier for SAFLOK locking systems is:			B 13
SEG Baubeschlag GmbH Industriestrasse 16 68766 Hockenheim Tel.: 06205/205-0 Fax: 06205/205-122			B 14
			B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

<p>All door jambs on corridor sides in the area of tiles shall be accomplished as shadow joint jambs and in the area of rooms as circumferential jambs made of sheet steel, sheet thickness at least 2 mm.</p> <p>Aluminum jambs made of extruded profiles or jambs of material 1.4031 edged with at least 2 mm thickness shall be installed in wet areas as per manufacturer's instruction.</p> <p>Hardware such as hinges, overhead closer, lock, kick plates, peep holes shall be performed in accordance with the description and list of equal products.</p> <p>Door stops shall be installed at all doors. Preference shall be given to wall in installation in top area of doors. Floor installation or installation in the area of door handles is unacceptable. The special door buffers shown on special plans shall be installed adjusted to door type.</p> <p>Doors located in circulation areas shall be provided with signage.</p> <p>Signage see</p> <p>Latrines in basement and attic shall be provided with information symbols (pictographs women/men).</p> <p>Product: VIELER Article no. women ER.US.PI.670 men ER.US.PI.671</p> <p>B 07.4.2.1 Equality of door systems: A list of equal products shall be enclosed to each door system description. The products listed in this list are investigated to equality, the listed products will be considered as equal by HQ USAREUR; these products can be installed.</p> <p>See for example B 07.4.4</p> <p>B 07.4.2.2 Door leaf surfaces wood door systems: As described in section B 08, the accomplishment of color series can be selected by real estate per building, they shall be determined binding at start of work of Final Design. Surface color shades are listed in lists for determined color series e.g. "cold series gray series" or "warm series-beige series" which can be selected by the designer.</p> <p>A mixing of color series within a building is not allowed. However, it can be changed in a real estate from building to building.</p>	<p>SOURCE</p> <p>STPL T3 001 00G</p> <p>B 09 Page 191</p> <p>B 07 Page 139</p>	B 01
		B 02
		B 03
		B 04
		B 05
		B 06
		B 07
		B 08
		B 09
		B 10
		B 11
		B 12
		B 13
		B 14
		B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

		SOURCE	
B 07.4.3 DOOR SCHEDULE – LOCKING Door systems in entire building shall be performed in accordance with locking and construction types described below. All lockings shall be obtained in project. Door list Fig. 07.23 see		B 07 Page 134-135	B 01
			B 02
			B 03
			B 04
			B 05
			B 06
			B 07
			B 08
			B 09
			B 10
			B 11
			B 12
			B 13
			B 14
			B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

Fig. 07.23

TÜRVERZEICHNIS-SCHLIESSUNG / DOOR SCHEDULE											
GESCHOSS / STORY	RAUM ROOM	BESCHLAG FITTING		ZYLINDER CYLINDER		BAUART CONSTRUCTION					
		SAFLOK	FREI-BESETZT FREE - OCCUPATED	PROFIL ZYLINDER PROFILE CYLINDER	BLIND ZYLINDER FLUSH-ENCASED CYLINDER	HOLZ WOOD	T30 HOLZ T30 WOOD	STAHL STEEL	T30 STAHL T30 STEEL	T90 STAHL T90 STEEL	OHNE BRANDSCHUTZANFORDERUNG NO FIRE-RATING
KELLERGEESCHOSS - BASEMENT	TECHNIK / AUSSENZUGANG TECHNICAL / EXTERIOR ACCESS	?						?			*5)
	TECHNIK / FLUR TECHNICAL TO CORRIDOR	?						?			*5)
	TÜREN IN TECHNIK DOORS IN TECHNICAL				?			?			
	TÜREN EL - TECHNIK DOORS EL - TECHNICAL				?			?			
	TOILETTEN DAMEN / HERREN EINGANG LATRINES WOMEN / MEN ENTRANCE			?				?			
	TOILETTEN KABINEN LATRINE CABINES		?							?	*2)
	WASCHKÜCHE LAUNDRY	?						?			
	WAFFENKAMMER ARMS ROOM			?				?			SONDERTÜR SPECIAL DOOR
	SCHMUTZRAUM MUD ROOM	?						?			*5)
	BÜRO UND / ODER LAGERRÄUME / EINGÄNGE OFFICE AND / OR STORAGE / ENTRANCES	?						?			
	BÜRO UND / ODER LAGERRÄUME / ZWISCHENTÜR OFFICE AND / OR STORAGE / MIDDLE DOOR			?				?			
	PUTZRAUM JANITOR CLOSET	?						?			
	ELEKTRO / VERTEILER IM FLUR ELECTRICAL / DISTRIBUTION PANEL IN CORRIDOR								?		*3)
	FLURTÜREN CORRIDOR DOORS								?		*3)
	FLURTÜREN INS TREPPENHAUS CORRIDOR DOORS INTO STAIRWELL				?				?		*4)
HAUPTGESCHOSSE - MAIN FLOORS	EINGANGSTÜR APARTEMENT APARTMENT - DOORS	?				?					
	SCHLAFRAUM TÜREN (NUR TYP 3) BEDROOM DOORS (ONLY TYP 3)	?				?					
	BADEZIMMER SCHLAFRÄUME BATHROOMS		?							?	*1) VOLLKUNSTSTOFF *1) ALL-PLASTIC *6)
	SCHRANKRAUM CLOSET			?		?					
	PUTZRAUM JANITOR CLOSET	?				?					
	KÜCHEN KITCHEN	?				?					
	ELEKTRO / VERTEILER IM FLUR ELECTRICAL / DISTRIBUTION PANEL IN CORRIDOR						?				*3)
	FLURTÜREN CORRIDOR DOORS								?		*3)
	FLURTÜREN INS TREPPENHAUS CORRIDOR DOORS INTO STAIRWELL				?				?		*4)
	TREPPENHAUSTÜREN INS FREIE STAIRWELL DOORS INTO OUTDOOR	?						?			*5)
	FLUCHTTÜREN AUSSENTREPPEN ESCAPE DOORS OUTSIDE STAIRWELL							?			*3)
	HAUPTINGÄNGE MAIN ENTRANCES	?				?					*5)

B 01

B 02

B 03

B 04

B 05

B 06

B 07

B 08

B 09

B 10

B 11

B 12

B 13

B 14

B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

SOURCE

TÜRVERZEICHNIS-SCHLISSUNG / DOOR SCHEDULE

GESCHOSS / STORY	RAUM ROOM	BESCHLAG FITTING		ZYLINDER CYLINDER		BAUART CONSTRUCTION						BEMERKUNGEN REMARKS
		SAFLOK	FREI-BESETZT FREE - OCCUPATED	PROFILZYLINDER PROFILE CYLINDER	BLIND ZYLINDER FLUSH-ENCASED CYLINDER	HOLZ WOOD	T30 HOLZ T30 WOOD	STAHL STEEL	T30 STAHL T30 STEEL	T90 STAHL T90 STEEL	OHNE ANFORDERUNG WITHOUT DEMANDS	
DACHGESCHOSS - ATTIC	APPARTEMENT – TÜREN APARTMENT – DOORS	?				?						
	SCHLAFRAUM TÜREN (NUR TYP 3) BEDROOM DOORS (ONLY TYP 3)	?				?						
	BADEZIMMER SCHLAFRÄUME BATHROOMS		?							?	*1) VOLLKUNSTSTOFF *1) ALL-PLASTIC	*6)
	SCHRANKRAUM CLOSET			?		?						
	SPIELRAUM GAMEROOM	?				?						
	TOILETTEN DAMEN / HERREN EINGANG LATRINES WOMEN / MEN ENTRANCE			?		?						
	TOILETTEN – KABINEN LATRINE CABINES		?							?	*2)	
	ZUGANG ABSTELLRÄUME (GEPÄCK SOLDATEN) ACCESS STORAGE (LUGGAGE SOLDIERS)	?				?						
	RAUM FÜR TELEFONE TELEFON ROOM	?				?						
	ELEKTRO / VERTEILER IM FLUR ELECTRICAL / DISTRIBUTION PANEL IN CORRIDOR						?				*3)	
	FLURTÜREN CORRIDOR DOORS								?		*3)	
	FLURTÜREN INS TREPPENHAUS CORRIDOR DOORS INTO STAIRWELL				?				?		*4)	
	FLUCHTTÜREN AUSSENTREPPEN ESCAPE DOORS OUTSIDE STAIRWELL	?									*3)	
SPITZBODEN - UPPER ATTIC	SPITZBODEN UPPER ATTIC				?					?	*4) BRANDABSCHNITT *4) FIRE COMPARTMENT	

*1)

Full synthetic, climate class II, stress group S

*2)

Synthetic elements, climate class II, stress group S
Turn knob shall be installed on bedroom side

*3)

Short-long plate, on both sides without profile cylinder perforation, panic, with reclosing function "B", e.g. BKS 2320 Panic

*4)

Short-long plate, on both sides with profile cylinder perforation, panic, with reclosing function "B", e.g. BKS 2320 Panic

B 01

B 02

B 03

B 04

B 05

B 06

B 07

B 08

B 09

B 10

B 11

B 12

B 13

B 14

B 15

*1)
Full synthetic, climate class II, stress group S

*2)
Synthetic elements, climate class II, stress group S
Turn knob shall be installed on bedroom side

*3)
Short-long plate, on both sides without profile cylinder perforation, panic, with reclosing function "B", e.g. BKS 2320 Panic

*4)
Short-long plate, on both sides with profile cylinder perforation, panic, with reclosing function "B", e.g. BKS 2320 Panic

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

B 07.4.4 Entrance door apartment

All access doors as of 1st floor up to attic, from corridor to apartments, kitchens, janitor's closets, game room, latrines/attic and storage bin rooms attic shall be constructed as follows:

Note:

Only doors to apartments will be provided with a door peephole. The lockings shall be observed.

Rated dimension

Width 1.00 m
Height 2.125 m

Clear passage dimension

Width 0.936 m
Height 2.093 m

Accomplishment with a shadow joint jamb, sheet metal thickness 2 mm. It is allowed to accomplish a circumferential jamb on room side.

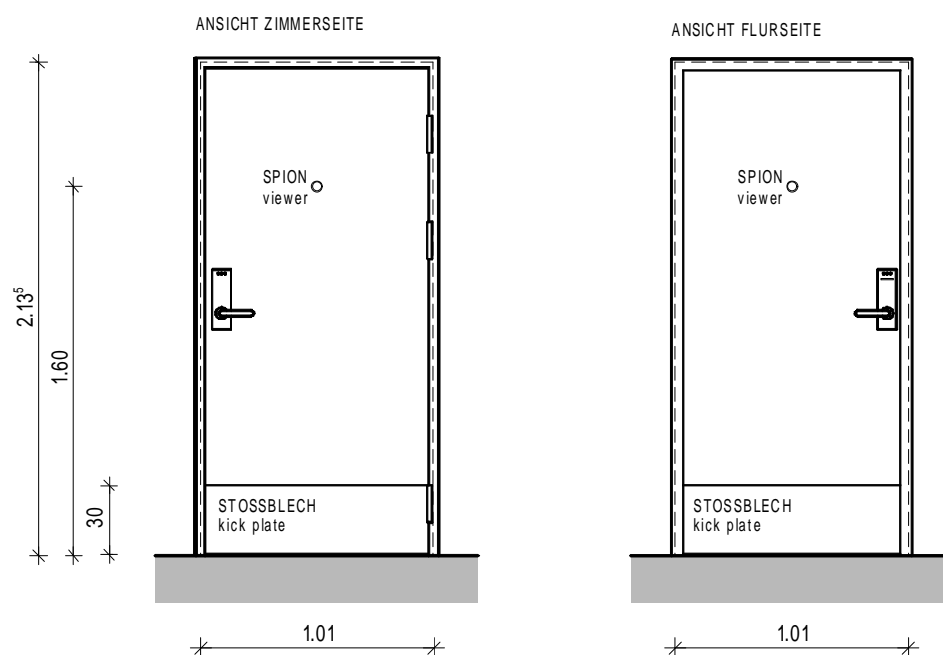
Allowed are all construction parts listed in following list of equal products.

The door leaf shall be marked in the rebate of butt closing door leaf analog to a construction supervisory test sign with embossed metal sign to be fastened with screws.

Lettering as follows: (*the type of door used shall be entered under type)

**T-30 FIRE RATED
BARRACKS APARTMENT DOOR LEAF
USAREUR STANDARD 2000, Type ***

Fig. 07.24 Apartment door with viewer



SOURCE

DIN 18 100

DIN 18 111

B 01

B 02

B 03

B 04

B 05

B 06

B 07

B 08

B 09

B 10

B 11

B 12

B 13

B 14

B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

		SOURCE	
Door jamb:		DIN 18 111	B 01
Shadow joint jamb / circumferential jamb, sheet steel, thickness 2 mm, butt rabbeted door			
Paint material / color	see	Page 202-203	B 02
Door leaf:			
Thickness total approx.	47 mm		B 03
Fire rating	T-30		
Edge design	butt		
Sound insulation value	RwP37 dB		
Sound insulation value	Rw32 dB		
Surface	on both sides laminated material panels		B 04
Material thickness	0.8-0.9 mm thick		
Product	GETALIT		
	A 420-T		B 05
Surface	vat texture		
Hinges:			
Hinges	3 ea		B 06
Product	WENÜ		
Type	STUBK 160.4.16		
Surface	Nirosta		B 07
Locking system:			
Electronic magnet card opening system, interior side without locking mechanism			
Product	SAFLOK		B 08
Type	Classic V		
Article	168 1000		
Interior and exterior side with handle			
Surface	US 26 D		B 09
Lock:			
Extra heavy-duty, hardened spring bolt and dead bolt, with dead bolt arrester			
Pin size:	70 mm		B 10
Article:	168 1100		
Kick plates			
	on both sides		
Stainless steel, sheet thickness	1 mm		B 11
Height	300 mm		
across full door width			
Fastening	glueing and visible arranged screwing		
Surface	sanded, grain 240		B 12
Viewer (only apartment entrance)			
wide angle, installed in door leaf center			
Installation height:	1.60 m		
Hardware latrine – entrance doors			
attic same as above, however, without Saflok			B 13
Handle set			
Product	VIELER		
Article no.	ER.US.DG.522.K1		B 14
	profile cylinder perforation		
			B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

SOURCE		
Manufacturer of doors with above listed requirements: SCHÖRGHUBER Spezialtüren GmbH & Co., Betriebs KG Neuhaus 3 84539 Ampfing Type/no. 13 N Alternative makes are: Svedex, Wirus See following list of equal products	Page 139	B 01
		B 02
		B 03
		B 04
		B 05
		B 06
		B 07
		B 08
		B 09
		B 10
		B 11
		B 12
		B 13
		B 14
		B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

B 07.4.4 ENTRANCE DOOR / apartment

SOURCE

DOOR LEAF

Manufacturer	SVEDEX	WIRUS	SCHÖRGHUBER	
Type / No.	Typ 5	T 30-1	13 N	
Fire protection DIN 4102/T5	T-30	T-30	T-30	
Door thickness total mm	47	45	47	
Edge formation	butt	butt	butt	
Area weight kg/m ²	35	34	31	
Stress group RAL	S	S	S	
Climate class RAL	II	II	II	
Air sound insulation DIN 4109				
Sound insulation size Rw dB	32	32	32	
Sound insulation size Rw,P dB	37	37	37	
Additional functions:				
Floor sealing	X	X	X	
Smoke protection	RS	RS	RS	
Saflok	X	X	X	
Special sign soffit	X	X	X	

DOOR SURFACE / LAMINATED MATERIAL PANELS (cold series)

Manufacturer	GETALIT	DUROPAL	PERSTORP	RESOPAL
of door collection				
Color shade	A 420 T	U 1188 KT	PP 2010 (Malibu) NCS S1000 N	0160-60 (Silver Grey) NCS S2000 N
Surface texture	vat paper	KT	KN (Konkret)	NP
Thickness laminated material panels mm	1,2	1,2	1,2	1,2

DOOR SURFACE / LAMINATED MATERIAL PANELS (warm series)

Manufacturer	GETALIT	DUROPAL	PERSTORP	RESOPAL
of door collection				
Color shade	A 32 T	U 1370 KT	PP 1040 Alpino NCS S 0502 Y	0112-60 Ivory NCS S 0502 Y
Surface texture	vat paper	KT	KN (Konkret)	NP
Thickness laminated material panels mm	1,2	1,2	1,2	1,2

HARDWARE / HINGES

Manufacturer	WENÜ	SIMONS	VIELER	
Hinges / article no.	STUKB 160.4.16	VN 7729 3d	ER.TB 160.3361.ST	
Hinge installation element	X	VN 7608.160	X	
max. door weight kg/m ²	120	120	120	
Support bolts	X	X	X	
Adjustment possibility	3D	3D	3D	

TOP DOOR CLOSER

Manufacturer	GEZE	DORMA		
Article no.	TS 5500 S,X	TS 93 NK		
Surface	nirosta	Stainless steel design		

X = to be accomplished and/or installed

B 01

B 02

B 03

B 04

B 05

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B 09

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B 12

B 13

B 14

B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

B 07.4.4.1 Entrance bedroom (in apartment)

The standard layout **Fig 06.3** requires an entrance door to bedroom in apartment. This door system shall be constructed same as apartment door system, however, with the construction elements described in the following.

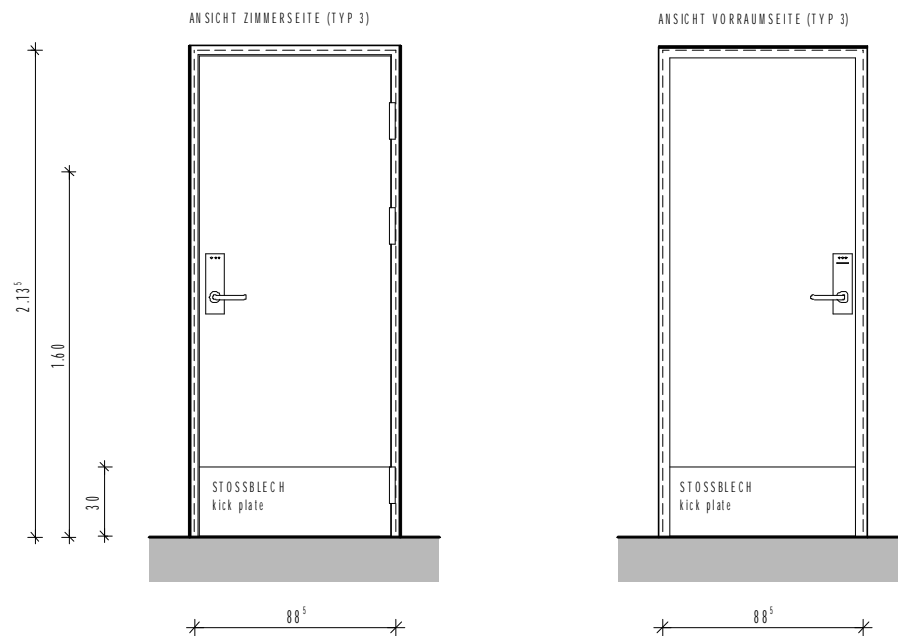
Rated dimension

Width 0,875 m
Height 2,125 m

Clear passage dimension

Width 0,811 m
Height 2,093 m

Fig. 07.25 Bedroom door



Door jamb:

Shadow joint jamb / circumferential jamb, sheet steel, thickness 2 mm, butt rabbeted door

Paint material / color see

Door leaf:

Thickness total approx. 47 mm
Edge design butt
Sound insulation value RwP 34 dB
Sound insulation value Rw 29 dB
Surface on both sides laminated material panels
Material thickness 0.8-0.9 mm thick

Product GETALIT
A 420-T
Surface vat texture

SOURCE

DIN 18 100

DIN 18 111

DIN 18 111

Page 202-203

B 01

B 02

B 03

B 04

B 05

B 06

B 07

B 08

B 09

B 10

B 11

B 12

B 13

B 14

B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

		SOURCE	
Hinges:			B 01
Hinges	3 ea		
Product	WENÜ		
Type	STUBK 160.4.16		B 02
Surface	Nirosta		
Locking system:			B 03
Electronic magnet card opening system, interior side without locking mechanism.			
Product	SAFLOK		
Type	Classic V		
Article	168 1000		B 04
Interior and exterior side with handle			
Surface	US 26 D		
Lock:			B 05
Extra heavy-duty, hardened spring bolt and dead bolt, with dead bolt arrester			
Pin size:	70 mm		
Article:	168 1100		
Kick plates			B 06
on both sides			
Stainless steel, sheet thickness	1 mm		
Height	300 mm		
across full door width			
Fastening	glueing and visible arranged screwing		B 07
Surface	sanded, grain 240		
Door stopper			
Special door stopper of material 1.4301 see		STPL T3 005 00G	B 08
Manufacturer of doors with above listed requirements:			
SCHÖRGHUBER			B 09
Spezialtüren GmbH & Co., Betriebs KG			
Neuhaus 3			
84539 Ampfing			B 10
Type/no.	3 N / VT		
Alternative makes are:			B 11
SVEDEX			
WIRUS			
WESTAG			B 12
			B 13
			B 14
			B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

B 07.4.4.1 ENTRANCE DOOR / bedroom (in apartment) Layout Fig. 06.3

SOURCE

DOOR LEAF

Manufacturer	SVEDEX	WIRUS	SCHÖRGHUBER	WESTAG
Type / No.	Typ P1	Otima 37-S	3 N/ VT	Typ WAT
	Perfect			
Door thickness total mm	42	44	47	42
Edge formation	butt	butt	butt	butt
Area weight kg/m²	27	28	31	24
Stress group RAL	S	S	S	S
Climate class RAL	II	II	II	II
Air sound insulation DIN 4109				
Sound insulation size Rw dB	27	28	29	27
Sound insulation size Rw,P dB	32	33	34	32
Additional functions:				
none				
smoke-proof				
Saflok	X	X	X	X

DOOR SURFACE / LAMINATED MATERIAL PANELS (cold series)

Manufacturer	GETALIT	DUROPAL	PERSTORP	RESOPAL
of door collection				
Color shade	A 420 T	U 1188 KT	PP 2010 (Malibu) NCS S1000 N	0160-60 (Silver Grey) NCS S2000 N
Surface texture	vat paper	KT	KN (Konkret)	NP
Thickness laminated material panels mm	0,8	0,8	0,8	0,8

DOOR SURFACE / LAMINATED MATERIAL PANELS (warm series)

Manufacturer	GETALIT	DUROPAL	PERSTORP	RESOPAL
of door collection				
Color shade	A 32 T	U 1370 KT	PP 1040 Alpino NCS S 0502 Y	0112-60 Ivory NCS S 0502 Y
Surface texture	vat paper	KT	KN (Konkret)	NP
Thickness laminated material panels mm	0,8	0,8	0,8	0,8

HARDWARE / HINGES

Manufacturer	WENÜ	SIMONS	VIELER	
Hinges / article no.	STUKB 160.4.16	VN 7729 3d	ER.TB 160.3361.ST	
Hinge installation element		VN 7608.160		
max. door weight kg/m²	120	120	120	
Support bolts	X	X	X	
Adjustment possibility	3D	3D	3D	

SPECIAL CONSTRUCTION PARTS / CHARACTERISTICS

Door stopper	Type	X	X	X
Special door stopper	see standard plan no. T3 001 00G			

X = to be accomplished and/or installed

B 01

B 02

B 03

B 04

B 05

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B 09

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B 11

B 12

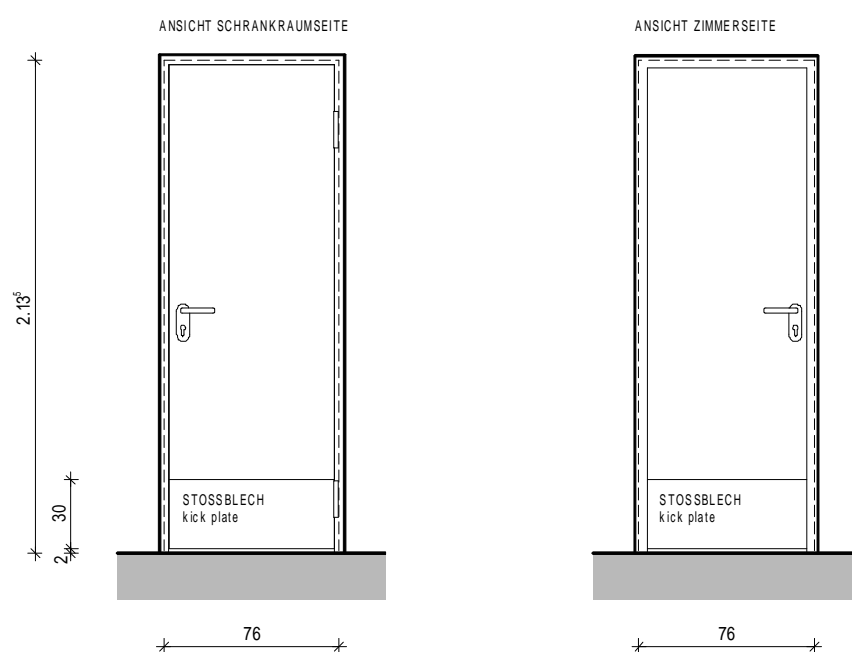
B 13

B 14

B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

			SOURCE	
B 07.4.4.2 Closet room door				B 01
Rated dimension:			DIN 18 100	
Width	0,750 m			B 02
Height	2,125 m			
Clear passage dimension			DIN 18 111	
Width	0,686 m			B 03
Height	2,093 m			
Fig. 07.26 Closet room door				B 04
				B 05
				B 06
				B 07
				B 08
				B 09
Door jamb:				B 10
Circumferential jamb, aluminum, thickness 2 mm, butt closing door with exterior insulation to wall.				
Product	KÜFFNER			B 11
Type surface	UST „hardline“ powder coated			
Color shade	see color list		B 08	B 12
Door leaf:				
Thickness total approx.	47 mm			B 13
Edge design	butt			
Sound insulation value	RwP 33 dB			
Sound insulation value	Rw 28 dB			
Surface	on both sides laminated material panels			B 14
Material thickness	0.8-0.9 mm thick			
Product	GETALIT			B 15
Surface	A 420-T vat texture			

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

		SOURCE	
Hinges:			B 01
Hinges	2 ea		
Product	WENÜ		
Type	STUBK 160.4.16		B 02
Surface	Nirosta		
Lock:			
Mortise lock	profile cylinder perforation		B 03
Lock class	4		
Product	BKS		
Article	2820		
Bathroom:	special		B 04
Cuff made of:	material 1.4301		
Pin size:	65 mm		
Handle set:			
Product:	HEWI		B 05
Article no.:	zgR 1111.23		
Color shade:	No. 95		
Kick plates			B 06
Stainless steel, sheet thickness	on both sides		
Height	1 mm		
across full door width	300 mm		
Fastening	glueing and visible arranged screwing		B 07
Surface sanded	grain 240		
Door stopper			
The door stopper shall be installed on top side of door.		B 10.7.8	B 08
see		Page 241	
Manufacturer of doors with above listed requirements:			
SCHÖRGHUBER			B 09
Spezialtüren GmbH & Co., Betriebs KG			
Neuhaus 3			
84539 Ampfing			B 10
Type/no.	3N VT		
Alternative makes are:	SVEDEX		B 11
	WIRUS		
			B 12
			B 13
			B 14
			B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

B 07.4.4.2 CLOSET ROOM DOOR

SOURCE

DOOR LEAF

Manufacturer	SVEDEX	WIRUS	SCHÖRGHUBER	
Type / no.	Typ P 1	OPTIMA 37 S	3 N / VT	
	PERFECT			
Door thickness total mm	42	39 – 42	47	
Edge formation	butt	butt	butt	
Area weight kg/m²	27	26	31	
Stress group RAL	S	M	S	
Climate class RAL	II	I	II	
Air sound insulation DIN 4109				
Sound insulation size Rw dB	27	28	28	
Sound insulation size Rw,P dB	32	33	34	
Additional functions:				
Door – supply air	X*	X*	X*	
DOOR SURFACE / LAMINATED MATERIAL PANELS (cold series)				
Manufacturer	GETALIT	DUROPAL	PERSTORP	RESOPAL
of door collection				
Color shade	A 420 T	U 1188 KT	PP 2010 (Malibu) NCS S1000 N	0160-60 (Silver Grey) NCS S2000 N
Surface texture	vat paper	KT	KN (Konkret)	NP
Thickness laminated material panels mm	0,8	0,8	0,8	0,8
DOOR SURFACE / LAMINATED MATERIAL PANELS (warm series)				
Manufacturer	GETALIT	DUROPAL	PERSTORP	RESOPAL
Color shade	A 32 T	U 1370 KT	PP 1040 Alpino NCS S 0502Y	0112-60 Ivory NCS S 0502 Y
Surface texture	vat paper	KT	KN (Konkret)	vat paper
Thickness laminated material panels mm	0,8	0,8	0,8	0,8
HARDWARE / HINGES				
Manufacturer	WENÜ	SIMONS	VIELER	
Hinges / article no.	STUKB 160.4.16	VN 7729 3d	ER.TB 160.3361.ST	
Hinge installation element		VN 7608.160		
max. door weight kg/m²	120	120	120	
Support bolts	X	X	X	
Adjustment possibility	3D	3D	3D	

X = to be accomplished and/or installed

* = shortening of door leaf

B 01

B 02

B 03

B 04

B 05

B 06

B 07

B 08

B 09

B 10

B 11

B 12

B 13

B 14

B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

B 07.4.4.3 Doors bathrooms in bedrooms

Doors bathrooms in bedrooms:

Rated dimension:

Width 0,750 m
Height 2,125 m

Clear passage dimension

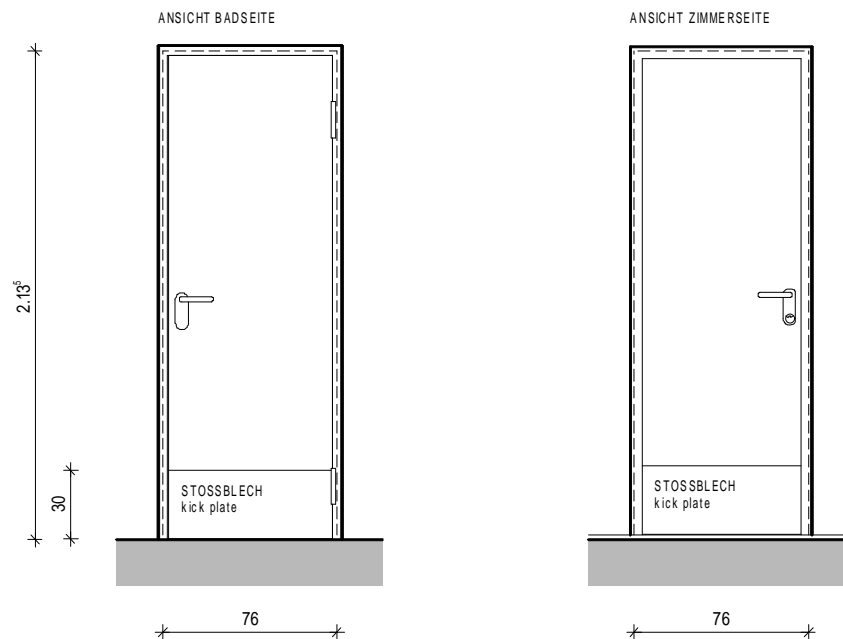
Width 0,686 m
Height 2,093 m

SOURCE

DIN 18 100

DIN 18 111

Fig. 07.27



Door jamb:

Circumferential jamb, aluminum, thickness 2 mm, butt closing door with exterior insulation.

Product KÜFFNER
Type UST „hardline“
surface powder coated

Color shade see color list

B 08

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

			SOURCE	
Door leaf:			EN 204	B 01
Product	WESTAG Nassraumtür			
Thickness total approx.	40 mm			
Polystyrene inserts	FCKW free / construction material class B1			B 02
Glueing	D 4 acc. to			
Surface	on both sides laminated material panels			
Material thickness	0.8-0.9 mm thick			B 03
Product	GETALIT			
	A 420-T			
Surface	vat texture			
Hinges:				B 04
Hinges	2 ea			
Product	WENÜ			
Type	STUBK 160.4.16			
Surface	Nirosta			B 05
Lock:				
Bolt trap latrine lock	KL			
Lock class	4		B 06	
Product	BKS			
Article	2820 BAD			
Bathroom:	special			
Cuff made of:	material 1.4301		B 07	
Pin size:	65 mm			
Handle set:				
Product:	HEWI			
Article no.:	fbg R 1111.23		B 08	
in special composition with short plate				
Bathroom side	blind			
Room side	with bolt-olive		B 09	
Color shade no.	95			
Installation: the turn knob shall be arranged on bedroom side				
Kick plates			B 10	
Stainless steel, sheet thickness	on both sides			
Height	1 mm			
across full door width	300 mm			
Fastening	glueing and visible arranged screwing		B 11	
Surface sanded	grain 240			
Door stopper			STPL T3 005 00G	B 12
The door stopper shall be installed on top side of door.				
Manufacturer of such doors is:				
WESTAG & GETALIT AG				B 13
Alternative makes are:				
	SVEDEX			B 14
	WIRUS			
	Schörghuber			B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

B 07.4.4.3 DOORS – bathrooms in bedrooms

SOURCE

DOOR LEAF

Manufacturer	SVEDEX	WIRUS	SCHÖRGHUBER	WESTAG
Type / no.	Typ NR 2	Typ H	3 N / NT	NASSRAUM
Fire protection DIN 4102/T5	B1	B1	B1	B1
Door thickness total mm	42	40	47	40
Edge formation	butt	butt	butt	butt
Area weight kg/m²	12	11	18	11
Stress group RAL	S	S	S	S
Climate class RAL	II	II	II	II
Air sound insulation DIN 4109				
Sound insulation size Rw dB				
Sound insulation size Rw,P dB				
Additional functions:				
none				
Remarks:				
Spot insensitiveness	EN 438	EN 438	EN 438	EN 438

DOOR SURFACE / LAMINATED MATERIAL PANELS (cold series)

Manufacturer	GETALIT	DUROPAL	PERSTORP	RESOPAL
of door collection				
Color shade	A 420 T	U 1188 KT	PP 2010 (Malibu) NCS S1000 N	0160-60 (Silver Grey) NCS S2000 N
Surface texture	vat paper	KT	KN (Konkret)	NP
Thickness laminated material panels mm	2,00	2,00	2,00	2,00

DOOR SURFACE / LAMINATED MATERIAL PANELS (warm series)

Manufacturer	GETALIT	DUROPAL	PERSTORP	RESOPAL
of door collection				
Color shade	A 32 T	U 1370 KT	PP 1040 Alpino NCS S 0502 Y	0112-60 Ivory NCS S 0502 Y
Surface texture	vat paper	KT	KN (Konkret)	NP
Thickness laminated material panels mm	2,00	2,00	2,00	2,00

HARDWARE / HINGES

Manufacturer	WENÜ	SIMONS	VIELER	
Hinges / article no.	STUKB 160.4.16	VN 7729 3d	ER.TB 160.3361.ST	
Hinge installation element		VN 7608.160		
max. door weight kg/m²	120	120	120	
Support bolts	X	X	X	
Adjustment possibility	3D	3D	3D	

X = to be accomplished and/or installed

* = shortening of door leaf

B 01

B 02

B 03

B 04

B 05

B 06

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B 12

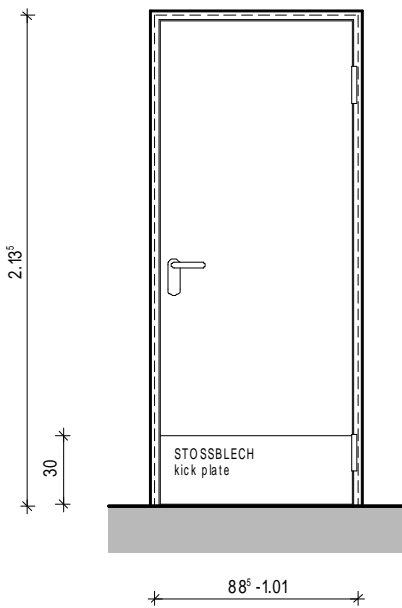
B 13

B 14

B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

			SOURCE	
B 07.4.5	Doors in front of electrical distributor cabinets / corridors 1st floor - attic			B 01
	1-wing / 2-wing, fire resistance class T30			
B 07.4.5.1	Doors in front of distributor cabinets / 1-wing, T-30:			B 02
Rated dimension:			DIN 18 100	
Width	0,875 m – 1,000 m			B 03
Height	2,125 m			
Fig. 07.28	Doors in front of distributor cabinets / 1-wing			B 04
 <p>Technical drawing of a door. The height is indicated as 2.135. The width is indicated as 885-1.01. A kick plate at the bottom is labeled 'STOSSBLECH kick plate' and has a height of 30. The door is shown in a closed position with a handle on the left side.</p>				B 05
				B 06
				B 07
				B 08
				B 09
Door jamb:			DIN 18 111	B 10
Shadow joint jamb or circumferential jamb as corner jamb, sheet steel, thickness 2 mm, butt closing door.				
Paint material / color	see		Page 202-203	B 11
Door leaf:				
Thickness total approx.	47 mm			B 12
Edge design	butt			
Surface	on both sides laminated material panels			
Material thickness	0.8-0.9 mm thick			
Product	GETALIT			B 13
	A 420-T			
Surface	vat texture			B 14
				B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

		SOURCE
Hinges:		B 01
Hinges	3 ea	
Product	WENÜ	
Type	STUBK 160.4.16	B 02
Surface	Nirosta	
Lock:		
Mortise lock	profile cylinder perforation	B 03
Lock class	4	
Product	BKS	
Article	1206	
Cuff made of:	material 1.4301	B 04
Pin size:	65 mm	
Handle set:		
Product:	VIELER	
Article no.:	ER.US.FSHG.522.K2	B 05
Short plate	170/55 mm, on both sides blind, without profile cylinder perforation	
Interior side:	without handles	B 06
Kick plates	on both sides	
Stainless steel, sheet thickness	1 mm	
Height	300 mm	B 07
across full door width		
Fastening	glueing and visible arranged screwing	
Surface sanded	grain 300	
Manufacturer of doors with above listed requirements:		B 08
SCHÖRGHUBER		
Spezialtüren GmbH & Co., Betriebs KG		
Neuhaus 3		B 09
84539 Ampfing		
Type/no.	13N	B 10
Alternative makes are:	SVEDEX	
	WIRUS	B 11
		B 12
		B 13
		B 14
		B 15

DESIGN GUIDELINES

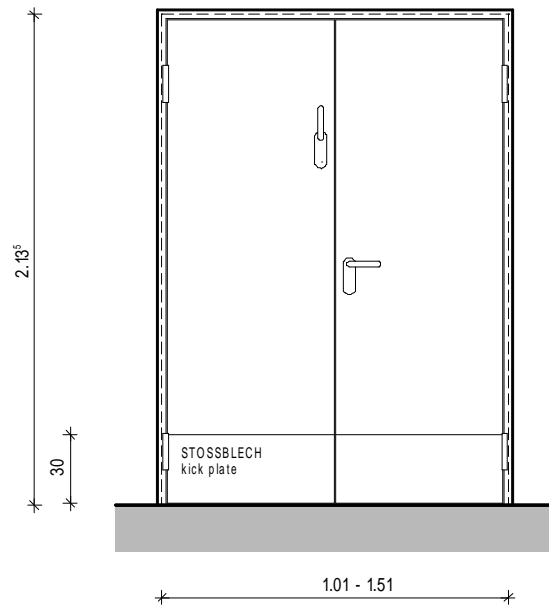
USAREUR - Restoration Program of Troop Billets - Standard 1+1

B 07.4.5.2 Doors of distributor cabinets / 2-wing, T-30:

Rated dimension:

Width 1,000 m – 1,500 m
Height 2,125 m

Fig. 07.29 Doors in front of distributor cabinets / 2-wing



Door jamb:

Shadow joint jamb or circumferential jamb as corner jamb, sheet steel, thickness 2 mm, butt closing door.

Paint material / color see

Door leaf:

Thickness total approx. 47 mm
Edge design butt
Surface on both sides laminated material panels
Material thickness 0.8-0.9 mm thick

Product GETALIT
A 420-T
Surface vat texture

SOURCE

DIN 18 100

DIN 18 111

Page 202-203

B 01

B 02

B 03

B 04

B 05

B 06

B 07

B 08

B 09

B 10

B 11

B 12

B 13

B 14

B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

		SOURCE	
Hinges:			B 01
Hinges	3 ea		B 02
Product	WENÜ		
Type	STUBK 160.4.16		
Surface	Nirosta		
Lock:			B 03
Mortise lock	profile cylinder perforation		B 04
Lock class	4		
Product	BKS		
Article	2423		
Cuff made of:	material 1.4301		B 05
Pin size:	65 mm		
Hinge locking plate	9000		
Stationary wing			B 06
Secured drive bolt lock			B 07
Product	BKS		
Article	2394		B 08
Switch lock	1895		
Pipe with sliding plug	9008/0018		
Handle set:			B 09
Product:	VIELER		B 10
Article no.:	ER.US.FSHG.522.K2		
Short plate	170/55 mm, on both sides blind, without profile cylinder perforation		
Drive bolt lock set	VIELER		
Article	ER.US.FSHG.522.K1		B 11
Kick plates			B 12
Stainless steel, sheet thickness	on both sides		
Height	1 mm		B 13
across full door width	300 mm		
Fastening	glueing and visible arranged screwing		B 14
Surface sanded	grain 300		
Manufacturer of doors with above listed requirements:			B 15
SCHÖRGHUBER			B 16
Spezialtüren GmbH & Co., Betriebs KG			
Neuhaus 3			B 17
84539 Ampfing			
Type/no.	13 N		B 18
Alternative makes are:			B 19
SVEDEX			
WIRUS			B 20

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

B 07.4.5 DOORS IN FRONT OF DISTRIBUTOR CABINETS / CORRIDORS 1st FLOOR - ATTIC 1-wing / 2-wing, fire resistance class T 30-1/2

SOURCE

DOOR LEAF

Manufacturer	SVEDEX	WIRUS	SCHÖRGHUBER	
Type / no. 1.-wing	Type 5 / 1 Fl.	T 30-1/Z	13 N / 1 Fl.	
Type / no.-2-wing	Type 5 / 2 Fl.	T 30-2/Z	13 N / 2 Fl.	
Fire protection DIN 4102/T5	T-30	T-30	T-30	
Door thickness total mm	47	45	47	
Edge formation	butt	butt	butt	
Area weight kg/m ²	35	34	31	
Stress group RAL	S	S	S	
Climate class RAL	II	II	II	
Air sound insulation DIN 4109				
Sound insulation size Rw dB				
Sound insulation size Rw,P dB	37	37	37	
Additional functions:				
Construction supervisory allowance	X	X	X	

DOOR SURFACE / LAMINATED MATERIAL PANELS (cold series)

Manufacturer	GETALIT	DUROPAL	PERSTORP	RESOPAL
of door collection				
Color shade	A 420 T	U 1188 KT	PP 2010 (Malibu) NCS S1000 N	0160-60 (Silver Grey) NCS S2000 N
Surface texture	vat paper	KT	KN (Konkret)	NP
Thickness laminated material panels mm	0,8	0,8	0,8	0,8

DOOR SURFACE / LAMINATED MATERIAL PANELS (warm series)

Manufacturer	GETALIT	DUROPAL	PERSTORP	RESOPAL
of door collection				
Color shade	A 223 T	U 1011 KT	PP 1040 Alpino NCS S 0502 Y	0105-60 Pearl White NCS S 0502 Y
Surface texture	vat paper	KT	KN (Konkret)	NP
Thickness laminated material panels mm	0,8	0,8	0,8	0,8

HARDWARE / HINGES

Manufacturer	WENÜ	SIMONS	VIELER	
Hinges / article no.	STUKB 160.4.16	VN 7729 3d	ER.TB 160.3361.ST	
Hinge installation element		VN 7608.160		
max. door weight kg	120	120	120	
Support bolts	X	X	X	
Adjustment possibility	3D	3D	3D	

TOP DOOR CLOSER

Manufacturer	GEZE	DORMA		
Article no., 1 wing.	TS 5500 S,X	TS 93 NK		
Article no., 2 wing.	TS 5500 IS,X	TS 93 GSRK		
Surface	nirosta	stainless steel design		

X = to be accomplished and/or installed

B 01

B 02

B 03

B 04

B 05

B 06

B 07

B 08

B 09

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B 11

B 12

B 13

B 14

B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

		SOURCE
B 07.4.6	DOORS IN BASEMENT	B 01
All doors in basement will be accomplished as steel doors. The doors shall be accomplished with steel shadow joint jambs to corridors and otherwise as circumferential jambs. Following described door types and qualities will be installed:		B 02
Entrance doors from corridor to office and/or storage rooms shall be equipped with Saflok, acc. to construction supervisory allowance, constructed in fire resistance class T 30 and installed. An allowance in individual case is not required.		B 03
Doors form corridor into latrines shall be equipped with locks for profile cylinders.		B 04
Doors between rooms, office and/or storage rooms shall be equipped with locks for profile cylinders.		B 05
Arms rooms shall be equipped with special doors.		B 06
If mechanical rooms are accessible as single rooms from corridors, doors with a fire resistance duration of 30 minutes (T 30-1) shall be installed. The Saflok locking device shall be installed in wall.		B 07
NOTE: The unevenness of sheet metal shells of door leaves such as bulges and swellings shall not exceed the values of DIN 59 232.		B 08
All door systems shall be accomplished with door rebate sealings made of APTK material, color shade black. If construction supervisory requirements/allowances of other sealings are requested, these shall be accomplished.		B 09
		B 10
		B 11
		B 12
		B 13
		B 14
		B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

B 07.4.6.1 DOORS IN BASEMENT from corridor to rooms		SOURCE	B 01
The door systems shall be constructed acc. to construction supervisory allowance in fire resistance class T 30 and installed as well as with burglar protection acc. to DIN 18 103, ET 1. A construction supervisory allowance in individual case is not required.		DIN 4102 DIN V 18103	B 02
Rated dimension		DIN 18 100	B 03
Width	1.00 m		
Height	2.125 m		
Clear passage dimension		DIN 18 111	B 04
Width	0.910 m		
Height	2.093 m		
EXCEPTIONS:			B 05
It is possible that existing basement door openings have a rated dimension of only approx. 2.00 m. To avoid costly alterations, the door height to be accomplished shall be coordinated with USAREUR upon commencement of design.			B 06
Jamb:			B 07
Shadow joint jamb or circumferential jamb or corner jamb with counter jamb, sheet steel, thickness 2 mm. A stainless steel locking plate will be installed flush with surface.			
Execution	analogous Fig. 07.24 , without peep hole		
Surface	painted		
Material / color	see	Page 202-203	B 08
Door leaf:			B 09
The door systems shall be constructed acc. to construction supervisory allowance in fire resistance class T 30 and installed.			
Thickness approx.	54 mm		
Edge design	rabbet		
Sheet thickness	1.5 mm, galvanized fine sheet metal		B 10
NOTE:			B 11
The unevenness of sheet metal shells of door leaves such as bulges and swellings shall not exceed the values of DIN 59 232.			
Jamb:			B 12
Shadow joint jamb or circumferential jamb or corner jamb with counter jamb, sheet metal thickness at least 2 mm			
Hinges:			B 13
2 hinges	acc. to allowance, at least 200/16/5 mm, with ball bearing, secured by threaded pins		
Locking system:			B 14
Electronic magnet card opening system			
Product	SAFLOK		
Type	Classic V		
Article	168 1000		
Interior and exterior side with handle			
Surface	US 26 D		B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

		SOURCE
Lock:		B 01
Extra heavy-duty, hardened spring bolt and dead bolt, without dead bolt arrester		
Pin size:	70 mm	B 02
Article:	168 1160	
NOTE:		B 03
Excepted are both entrance doors in latrine facilities , a lock (no Saflok) shall be installed in them:		
Lock:		B 04
Mortise lock	profile cylinder perforation	
Lock class	4	
Product	BKS KIMA	
Article	20 KU	
Cuff made of:	material 1.4301	B 05
Pin size:	65 mm	
	or acc. to construction supervisory allowance	
Kick plates	on both sides	B 06
Stainless steel, sheet thickness	1 mm	
Height/room side	300 mm	
across full door width		
Fastening	glueing and visible arranged screwing	B 07
Surface, sanded	grain 240	
Manufacturer of doors with above listed requirements:		B 08
HODAPP		
77 855 Achern		
Großweierer Straße 77		
Type/no.	SNT – 1/ET-1/ RS	B 09
Alternative makes are:	Franzen Feuerschutztüren	
	41812 Erkelenz	
	Gerhard Welter Straße 7	B 10
	Körner Stahltore	
	21335 Lüneburg - Oederne	
	Häcklinger Weg 47	B 11
	Hörmann	
	33803 Steinhagen	
	Upheider Weg 94 - 98	B 12
		B 13
		B 14
		B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

B 07.4.6.1 DOORS IN BASEMENT (from corridor to rooms)

SOURCE

DOOR LEAF

Manufacturer	HODAPP	FRANZEN	KÖRNER	HÖRMANN
Type/ no.	SNT-1/ET-1/ RS	SNT-1 /RS	SNT-1 /RS	T30 -1 / H3
Construction acc. to DIN 18 082	X	X	X	X
Fire protection DIN 4102/T5	T 30	T 30	T 30	T 30
Door thickness total mm	54	54	54	55
Edge formation	F	F	F	F
Air sound insulation DIN 4109				
Sound insulation size Rw dB				
Sound insulation size Rw,P dB				
Additional functions:				
Smoke protection DIN 18 095	X	X	X	X
Floor sealing	X	X	X	X
HARDWARE / HINGES				
Manufacturer				
Hinges / article no.	nZ	nZ	nZ	nZ
Hinge installation element				
max. door weight kg				
Support bolts				
Adjustment possibility				
TOP DOOR CLOSER				
Manufacturer	Geze	Dorma		
Article no., 1-wing.	TS 5500 S,X	TS 93 NK		
Article no., 2-wing				
Surface	nirosta	nirosta		

- X = to be accomplished and/or installed
 F = fold formation
 nZ = acc. to construction supervisory allowance
 M = door leaf with mineral wool filling
 3D = three-dimensional adjustable hinge

B 01

B 02

B 03

B 04

B 05

B 06

B 07

B 08

B 09

B 10

B 11

B 12

B 13

B 14

B 15

USAREUR - Restoration Program of Troop Billets - Standard 1+1

bdg10_2000

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

		SOURCE	
Kick plates	on both sides		B 01
Stainless steel, sheet thickness	1 mm		
Height/room side	300 mm		
across full door width			
Fastening	glueing and visible arranged screwing		B 02
Surface, sanded	grain 240		
Manufacturer of doors with above listed requirements:			B 03
HODAPP			
77 855 Achern			
Großweierer Straße 77			
Type/no.	MZ - 1		B 04
Alternative makes are:	Franzen Feuerschutztüren		
	41812 Erkelenz		
	Gerhard Welter Straße 7		B 05
	Körner Stahltore		
	21335 Lüneburg - Oederne		
	Häcklinger Weg 47		B 06
	Hörmann		
	33803 Steinhagen		
	Upheider Weg 94 - 98		B 07
			B 08
			B 09
			B 10
			B 11
			B 12
			B 13
			B 14
			B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

SOURCE

B 07.4.6.2 DOORS BETWEEN ROOMS

MANUFACTURER	HODAPP	FRANZEN	KÖRNER	
Type / no.	MZ-1	MZ-1	MZ-1	
Fire protection DIN 4102/T5				
Door thickness total mm	54	54	54	
Edge formation	F	F	F	
Area weight kg/m ²				
Air sound insulation DIN 4109				
Sound insulation size Rw dB				
Sound insulation size Rw,P dB				
Door filling	M	M	M	
Additional functions:				
Construction supervisory allowance				
HARDWARE / HINGES				
Manufacturer				
Hinges / article no.				
Hinge installation element				
max. door weight kg				
Support bolts				
Adjustment possibility				
TOP DOOR CLOSER				
Manufacturer				
Article no., 1-wing				
Article no., 2-wing				
Surface				

X = to be accomplished and/or installed
 F = fold formation
 nZ = acc. to construction supervisory allowance
 M = door leaf with mineral wool filling
 3D = three-dimensional adjustable hinge

B 01

B 02

B 03

B 04

B 05

B 06

B 07

B 08

B 09

B 10

B 11

B 12

B 13

B 14

B 15

DESIGN GUIDELINES

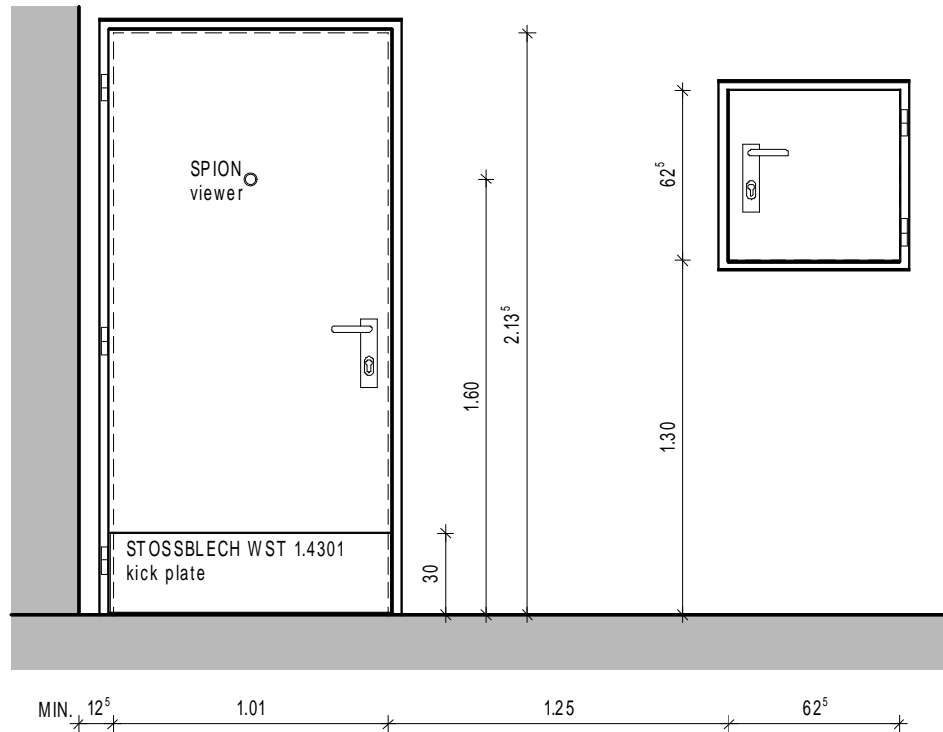
USAREUR - Restoration Program of Troop Billets - Standard 1+1

		SOURCE	
B 07.4.7	Doors Arms Room	DOD 5100-76-M B 07	B 01
A double door security system shall be used throughout USAREUR Barracks.			B 02
Interior doors shall consist of 50 mm thick solid wood or laminated wood with a steel plate (thickness 12 mm) planked on the exterior side or as standard commercial construction. The construction shall have a resistance class ET 2, DIN 18 103. The door shall have a test certificate and must be tested for bullet resistance.			B 03
Door leaves, frames and holders shall be firmly anchored and provided with expansion-free void filler to prevent unlocking of door bolt through prying or lifting of the door frame. Frames and locks of interior and exterior doors shall be planned and installed in a way, that frame covers or the installation locking mechanism cannot be removed to facilitate unlocking of the door bolt of a protected from outside, if the door is closed and locked.			B 04
Regulations for door frames and thresholds shall be in accordance with the regulations for the actual doors. If metal doors are used, frames and thresholds should be also of metal. A steel arms vault door, class 5, with integral three-digit number lock with changeable combination can be installed instead of other doors and locks.			B 05
Various type of door hinges are commercially available. Safety hinges with fixed pins or equivalent hinges should be selected for security zones; exposed hinge pins should be cold hardened, spot welded or protected otherwise to prevent removal; hinge mounting screws should not be exposed on the exterior side of the arms room.			B 06
Interior door (room side): The following described arms room door and flap meet the above described criteria. All other arms room doors and flaps not meeting these criteria shall be replaced. Fig. 07.30.			B 07
Product	HODAPP M4-SF-ET3		B 08
Material color list	see		B 09
Rated dimension:			B 10
Width	1.000 m		DIN 18 100
Height	2.125 m		B 11
Clear passage dimension:			DIN 18 111
Width approx.	0.910 m		B 12
Height approx.	2.093 m		B 13
EXCEPTION.		B 14	
Height	2.010 m	B 15	
If existing door heights shall be used. This solution shall be always coordinated with HQ USAREUR prior to accomplishment.			

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

Fig. 07.30 Arms room – security door



SOURCE

STPLAN
W3 001.00 G

B 01

B 02

B 03

B 04

B 05

B 06

B 07

B 08

B 09

B 10

B 11

B 12

B 13

B 14

B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

SOURCE	
Exterior Doors: (Fig. 07.31) [Corridor Side]:	B 01
The frame of exterior doors consists of a three-sided angle frame, angle 65/65/8 mm, St. 37.2. The angle steel frame shall be fastened in the wall, at least one each side with 4 and on the top side in the center with a flat anchor 40/4 mm, to prevent the door from being dismantled from outside. The angle frame shall be extended by an entire longitudinal welding at two locations with a flat steel 40/8/250 mm.	B 02
Exposed door hinges - at least three each - shall be secured to prevent the door from being pried or dismantled from outside.	B 03
The door wing consists of vertical frame profiles, of flat steel bars 40/24 mm and horizontal flat steel bars 40/14 mm and 18 flat steel bars cross 40/14 mm. The clear distance of horizontal flat steel bars among each other shall be max. 10 cm.	B 04
These flat steel bars shall be drilled at max. distance of 10 cm. Vertical round bars made of full steel 14 mm diameter shall be lead through; the round bars shall be welded on each cross bar from bottom and top side. Flat steel panels 80/8/300 mm shall be completely welded in the area of hasps as support area for the hasps.	B 05
A issue counter shall be arranged in the center of door Width 30 cm Height 15 cm A steel plate shall be welded to the issue counter Dimension 30 / 20 / 0.4 cm welded on the center flat bar; projection towards outside max. 5 cm rounded edges of plate.	B 06
Fig. 07.33 Two hasps of flat steel 40/4 mm shall be installed on the inner side; they shall be welded once to the frame and once to the door frame. Both parts shall have a drilling of 12 mm diameter.	B 07
Two hasps for a padlock shall be welded 1 x on the outside with the angle frame and 1 x with the door frame. Both hasps shall be U.S. Government furnished, installation shall be within the project scope. Size, see Fig. 07.33	B 08
B 07.4.8 Issue window: (Fig. 07.31 / 07.32) The interior section of the issue window 60 x 60 cm shall be in accordance with the criteria for the interior door.	B 09
The same lock shall be installed as used for the interior door (Hodapp M4-SF-ET3).	B 10
A swing exterior door with safety grille shall be installed on the outside, with a hasp for a padlock, drilling 12 mm, (lock of series 200). [Construction of hasp see entrance door outside].	B 11
A steel plate, 250 x 150 x 4 mm shall be welded on the outside, in front of the hasp, as protection for the hasp.	B 12
	B 13
	B 14
	B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

SOURCE

The exterior grille shall be manufactured according to the same principle as the lattice door.

The railing between inner and outer door shall be filled with a multiplex board, thickness 30 mm, it shall be painted with DD-paint (without solvent).

Arms room lattice door with issue counter, installation on corridor side.

Fig. 07.31 Arms room exterior door grille door

STPL.
W3 001.00 G

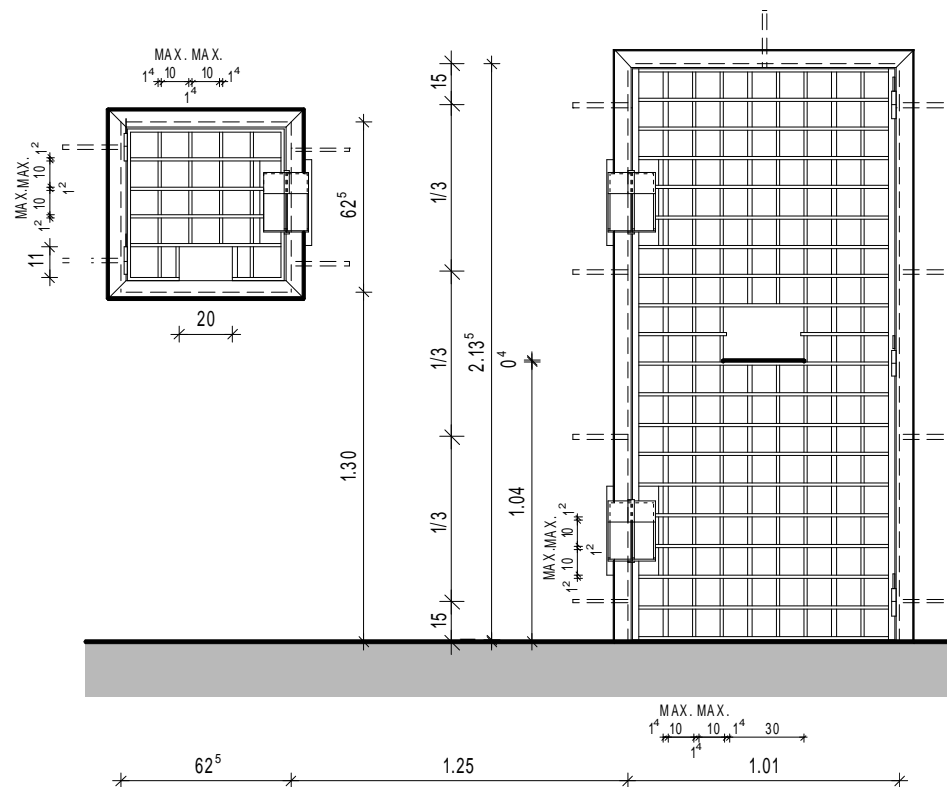
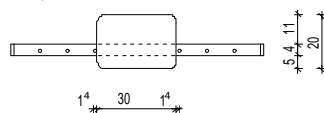


Fig. 07.32

STAHLPLATTE 300x200x4mm
steelplate



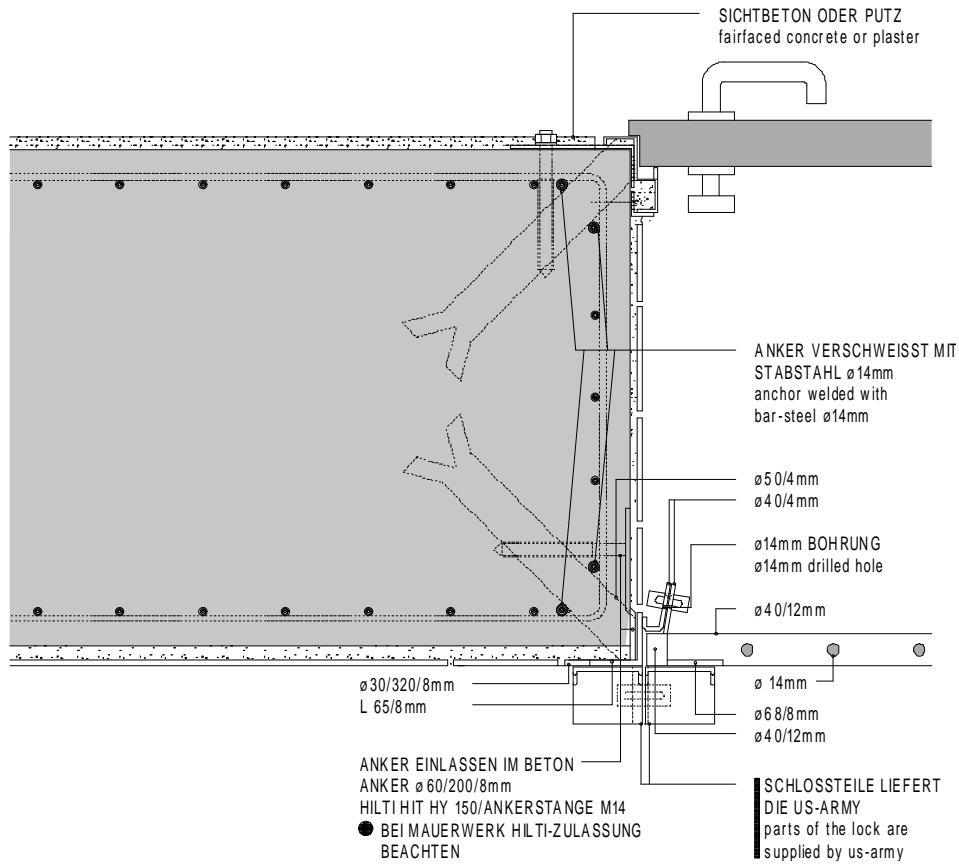
DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

SOURCE

Arrangement of hasp in the area of arms room lattice door area

Fig. 07.33 Hasp (arrangement of hasp)



B 01

B 02

B 03

B 04

B 05

B 06

B 07

B 08

B 09

B 10

B 11

B 12

B 13

B 14

B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

			SOURCE	
B 07.4.9	STAIRCASE ACCESS DOORS AND FIRE SECTION DOORS IN CORRIDORS made of steel			B 01
Fire resistance duration	30 minutes – fire resistance class T 30		DIN 4102	B 02
Construction type:	B-T 30-1, T 30-2		DIN 18 082 T1/T2	
Staircase access doors and fire section doors are fire protection doors. They shall be in accordance with the required fire resistance classes. Glazing shall also conform with required fire resistance classes. Only structures with construction supervision approval, or DIN tested, shall be installed. Installation of doors shall be in conformance with manufacturer's instructions and the construction supervision approval, since otherwise the door will lose its approval. Steel frames shall be grouted voidlessly.				B 03
All doors will be provided with glass recesses; these shall conform with the fire resistance class of door and together with the door have a construction supervision approval. Only F-glazings are allowed.				B 04
The following door types and/or dimensions shall be installed:				B 05
Staircase access doors:				B 06
Minimum rated dimensions:				B 07
Width	1.125 m			
Height	2.125 m			
Fire section doors:				B 08
At corridor widths up to 1.70 m = one-wing doors				
Minimum rated dimensions:				B 09
Width	1.125 m			
Height	2.125 m			
At corridor widths more than 1.70 m - 2.20 m = two-wing doors, asymmetrical division				B 10
Dimensions:				
Width	1.50 - 2.00 m			
Height	2.125 m			
The movable wing of asymmetrically divided doors shall have a minimum passage width of 1.06 m. Only this wing will be provided with a glass recess.				B 11
At corridor widths more than 2.20 m = two-wing doors, symmetrical division				
Min. nominal dimensions:				B 12
Width as of	2.125 m			
Height	2.125 m			
Door leaves:				B 13
Thickness	as per test certificate			
Edge design	rabbeted			
Surface	sheet steel, min. 1.5 mm thick			
NOTE:				B 14
Unevenness of sheet plates, such as dents and depressions, shall not exceed the values as per DIN 59 232.				B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

		SOURCE	
Door jamb:		B 08	B 01
Shadow joint jamb or circumferential jamb, on stainless steel locking plate, installed flush with surface, the locking plate shall be fastened with stainless steel rivets at 2-wing door systems.			B 02
Sheet thickness	2 mm		B 03
Surface	painted		
Material / color	see		
Glass recess:		DIN 4102	
Form	rectangular		B 04
Width	46 cm		
Height	91 cm		
Glazing	F 30		
Hinges:			B 05
Hinges acc. to construction supervisory allowance, however, at lest 2 ea ball bearing hinges and 2 ea securing bolts.			
Product	acc. to construction supervisory allowance		B 06
Closing one-wing doors:			
Overhead door closer			B 07
Product	GEZE		B 08
Article	TS 5500 S,X		
Cover cap	Nirosta		
Adhesive magnet with installation panel, operation voltage 24 V DC, holding power 800 N.			B 09
Product	GEZE		
Article	48386		
Adhesive counter plate	48389		
Closing of two-wing doors:			B 10
Overhead door closer, slide rail door closer with integrated locking sequence control. Continuously over both doors, incl. Nirosta covering.			
Product	GEZE		B 11
Article	TS 5500 IS,X		
Cover cap	Nirosta		
Adhesive magnet with installation panel, operation voltage 24 V DC, holding power 800 N.			B 12
Product	GEZE		
Article	48386		
Adhesive counter plate	48389		
Lock for one-wing doors:			B 13
Lock	class 4		B 14
Cuff	stainless steel, rounded		
Pin size	65 mm		
Pin clamp nut	9 mm		
Product	BKS		B 15
Article	2320 Panik		
Change-over function:	B		

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

		SOURCE
Lock for two-wing doors:		B 01
Mobile wing	trap lock	B 02
Product	BKS	
Article	2321 panic trap lock	B 03
Pin size	65 mm	
Steel clamp nut	9 mm	B 04
Handle pin	B 76/76	
Stationary wing		B 05
Product	BKS	
Article	2390 panic drive bolt lock special function decoupled	B 06
Article	2528 reversing lock automatic locking effective towards top of stationary wing with drive bolt rod being under spring pressure	
Switch lock	1895/0003	B 07
Pipe with sliding plug	9008/0018	
Reversing lock	2598	B 08
Handle set for one-wing doors:		
Product	VIELER	B 09
Type	ER.US.FSG.522.K2 fire retardant set short plates 170/55 mm, profile cylinder perforation	
Handle set for two-wing doors		B 10
Mobile wing:		
Product	VIELER	B 11
Type	ER.US.FSHG.522.K2 short plates 170/55 mm, profile cylinder perforation	
Stationary wing		B 12
Product	VIELER	
	ER.US.FSHG.522.K1 short plates 160/45 mm, profile cylinder perforation	B 13
Kick plates	on both sides of door leaves 1 mm thick	
Height	300 mm	B 14
Stainless steel	grain 240	
Fastening	glued and exposed screw fastening	B 15

SOURCE		
		B 01
		B 02
		B 03
		B 04
		B 05
		B 06
		B 07
		B 08
		B 09
		B 10
		B 11
		B 12
		B 13
		B 14
		B 15

Fig. 07.34 Doors of corridor widths up to 1.70 m

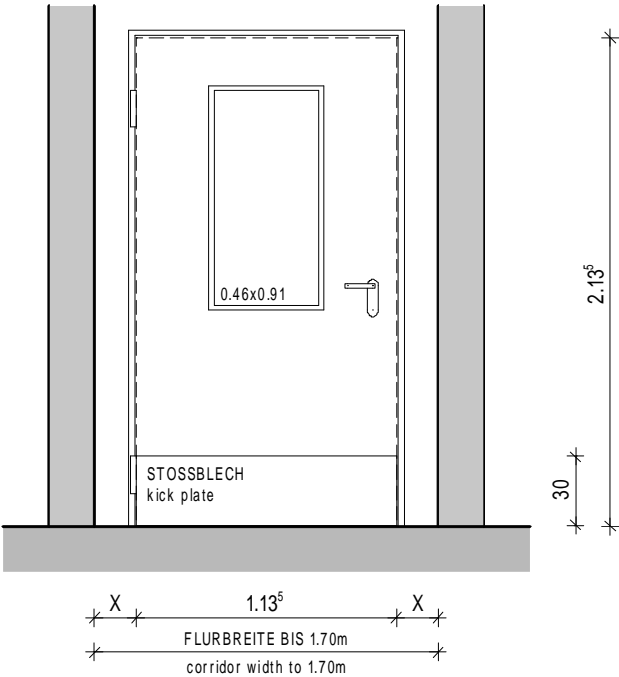


Fig. 07.35 Doors of corridor width from 1.70 m – 2.20 m

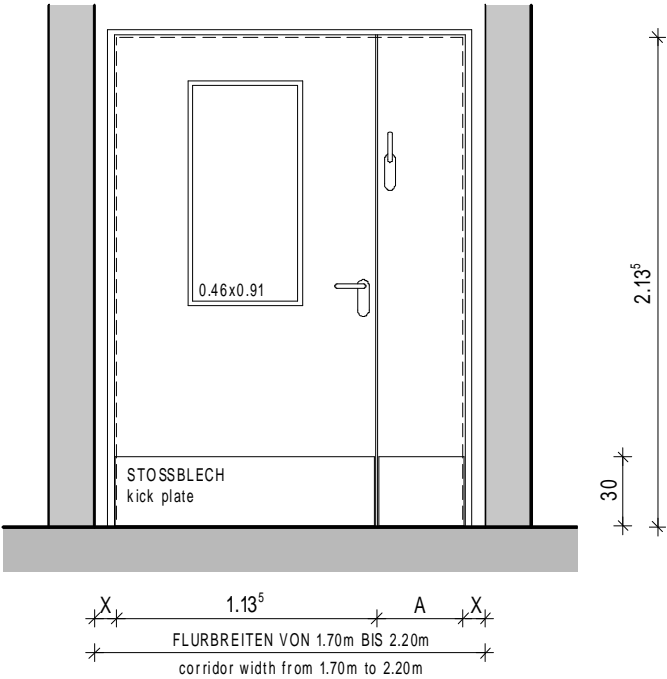
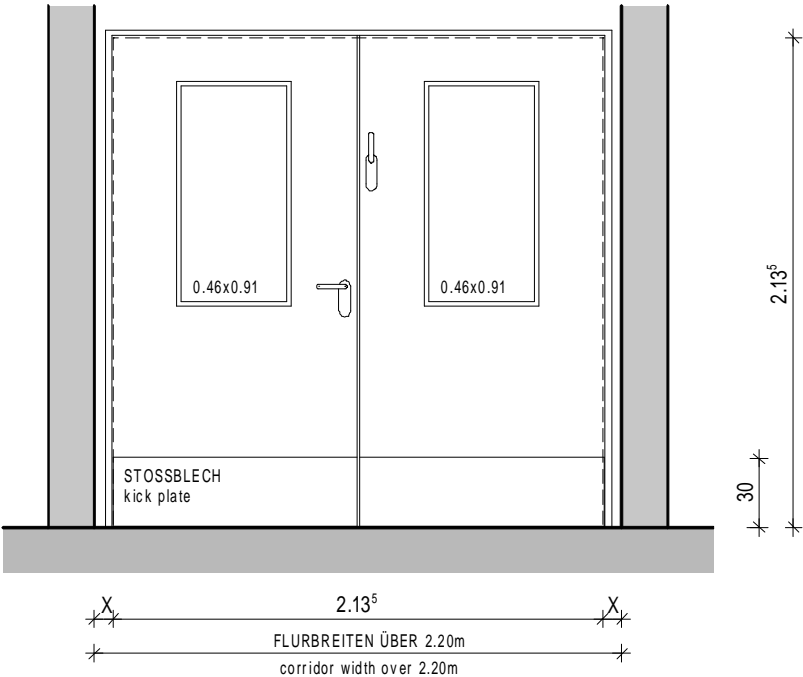


Fig. 07.36 Doors with a corridor width more than 2.20 m



SOURCE

B 01

B 02

B 03

B 04

B 05

B 06

B 07

B 08

B 09

B 10

B 11

B 12

B 13

B 14

B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

SOURCE

B 07.4.9 STAIRCASE ACCESS DOORS AND FIRE SECTION DOORS IN CORRIDORS made of steel 1 and 2-wing

DOOR LEAF

Manufacturer	HODAPP	FRANZEN	KÖRNER	HÖRMANN
Type / no. 1-wing	SNT-1 / RS	SNT-1 / RS	SNT -1/ RS	T30-1 / H3 /.RS
Type/ no. 2-wing	SNT-2 / RS	SNT-2 / RS	SNT-2 / RS	T30-2 / H3 / RS
Construction type DIN 18082	X	X	X	X
Fire protection DIN 4102/T5	X	X	X	X
Door thickness total mm	54	54	54	55
Edge formation	F	F	F	F
Area weight kg/m²				
Air sound insulation DIN 4109				
Sound insulation size Rw dB				
Sound insulation size Rw,P dB				
Fire protection pane F30	X	X	X	X
Additional functions:				
Construction supervisory allowance	X	X	X	X
Smoke protection	X	X	X	X
Panic function	X	X	X	X

HARDWARE / HINGES

Manufacturer				
Hinges / article no.	nZ	nZ	nZ	nZ
Hinge installation element				
max. door weight kg				
Support bolts				
Adjustment possibility				
Acc. to allowance / with ball bearing	X	X	X	X

TOP DOOR CLOSER

Manufacturer	GEZE	DORMA		
Article no., 1 wing.	TS 5500 S, X	TS 93 NK		
Article no., 2 wing.	TS 5500 IS, X	TS 93 GSRK		
Surface	nirosta	nirosta		

- X = to be accomplished and/or installed
 F = fold formation
 nZ = acc. to construction supervisory allowance
 M = door leaf with mineral wool filling
 3D = three-dimensional adjustable hinge

B 01

B 02

B 03

B 04

B 05

B 06

B 07

B 08

B 09

B 10

B 11

B 12

B 13

B 14

B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

		SOURCE	
B 07.4.10	Doors in front of electrical distributor cabinets / corridors basement 1 / 2-wing, fire resistance class T30		B 01
B 07.4.10.1	Doors in front of distributor cabinets / 1-wing:		B 02
Rated dimension:		DIN 18 100	
Width	0,885 m – 1,000 m		
Height	2,125 m		B 03
B 07.4.10.2	Doors in front of distributor cabinets / 2-wing:		
Rated dimension:		DIN 18 100	B 04
Width	1,000 m – 1,500 m		
Height	2,125 m		
Accomplishment:			B 05
The door systems shall have a construction supervisory allowance. They shall be accomplished as steel doors in same construction type, with same hardware and functions as door systems described in section B 07.4.5 and B 07.4.5.1.			
Drawings	Fig. 07.28	Page 149	B 06
and	Fig. 07.29	Page 151	
shall be also use for these door systems.			B 07
			B 08
			B 09
			B 10
			B 11
			B 12
			B 13
			B 14
			B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

SOURCE

**B 07.4.10 Doors in front of electrical distributor cabinets / corridors
basement
1-wing, 2-wing fire resistance class T30**

DOOR LEAF

Manufacturer	HODAPP	FRANZEN	KÖRNER	HÖRMANN
Type/ no. 1 wing	SNT-1	SNT-1	SNT-1	T 30-1/ H3
Type / no. 2 wing	SNT-2	SNT-2	SNT-2	T 30-2/ H3
Construction acc. to DIN 18 082	X	X	X	X
Fire protection DIN 4102/T5	X	X	X	X
Door thickness total mm	54	54	54	55
Edge formation	F	F	F	F
Area weight kg/m²				
Air sound insulation DIN 4109				
Sound insulation size Rw dB				
Sound insulation size Rw,P dB				
Additional functions:				
Construction supervisory allowance	X	X	X	X
HARDWARE / HINGES				
Manufacturer				
Hinges / article no.				
Hinge installation element				
max. door weight kg				
Support bolts				
Adjustment possibility				
TOP DOOR CLOSER				
Manufacturer	GEZE	DORMA		
Article no., 1-wing	TS 5500 S,X	TS 93 NK		
Article no., 2-wing	TS 5500 IS,X	TS 93 GSRK		
Surface	nirosta	nirosta		

X = to be accomplished and/or installed
 F = fold formation
 nZ = acc. to construction supervisory allowance
 M = door leaf with mineral wool filling
 3D = three-dimensional adjustable hinge

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DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

		SOURCE	
B 07.4.9.11	EXTERIOR ACCESS DOORS – STAIRWELLS - MECHANICAL		B 01
<p>Exterior access doors to stairwells and to joint mechanical shall be accomplished in construction and type of a T 30 door system, also the glazings. The installation of doors shall be accomplished acc. to manufacturer regulation. Steel jambs shall be filled without hollow space. Required reinforcements for top door closer, special door stopper shall be installed.</p>			B 02
<p>Minimum rated dimensions:</p> <p>Width 1,125 m</p> <p>Height 2,125 m</p>			B 03
<p>The transportation of construction parts of mechanical can require wider door clear dimensions, then these shall be accomplished.</p>			B 04
<p>Door leaves:</p> <p>Thickness 54 mm</p> <p>Edge formation closing into rebate</p> <p>Surface sheet steel, at least 1.5 mm thick, galvanized</p>			B 05
<p>Door jamb:</p> <p>Shadow joint jamb or circumferential jamb, one stainless steel locking plate will be installed flush with surface.</p> <p>Sheet metal thickness 2 mm galvanized</p> <p>Surface painted</p> <p>Material / color see</p>			B 06
		Page 202-203	B 07
<p>NOTE:</p> <p>The unevenness of sheet metal shells of door leaves such as bulges and swellings shall not exceed the values of DIN 59 232.</p>			B 08
<p>Glass recess:</p> <p>Shape rectangular</p> <p>Width 46 cm</p> <p>Height 46 cm</p> <p>Glazing VSG/ESG</p>			B 09
<p>Hinges:</p> <p>Hinges acc. to construction supervisory allowance, however, at least 2 ea ball bearing hinges and 2 ea securing bolts.</p>			B 10
<p>Product acc. to construction supervisory allowance</p>			B 11
<p>Lock for one-wing doors:</p> <p>Lock class 4</p> <p>Cuff stainless steel, rounded</p> <p>Locking plate stainless steel, rounded</p> <p>Pin size 65 mm</p> <p>Pin clamp nut 9 mm</p> <p>Product BKS KIMA</p> <p>Article 20 KU</p>			B 12
			B 13
<p>Locking system:</p> <p>Electronic magnet card opening system</p> <p>Product SAFLOK</p> <p>Type Classic V</p> <p>with protective covering / plexiglass</p> <p>180 / 180 / 80 mm</p> <p>sealing of joints, installation in wall.</p>			B 14
			B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

			SOURCE	
Electrical door opener:				B 01
Electrical door opener with a stainless steel cuff, cable entrance water-proof, accomplishment 12 V, electrical delocking, eE (100 % turn-on duration) with recovery diode.				B 02
Handle set:				
Product	VIELER			B 03
Type	ER.US.WG4.522.K2 FH set short plate 170/55 mm, without profile cylinder perforation			B 04
Kick plates	on both sides of door leaves 1 mm thick			B 05
Height	300 mm			
Surface, sanded	grain 240			B 06
Fastening	glueing and visible arranged screwing			
Door stopper:				
Special make see	STPL T3 001 00G			B 07
B 07.4.11.1 Doors in mechanical				B 08
Door systems in mechanical shall be accomplished as steel doors as far as required. Accomplishment and quality acc. to section B 07.4.6.1.			Page 155	
Rooms requiring door systems with a fire resistance acc. to section B 07.4.9			Page 166	B 09
and acc. to construction supervisory allowance,				
Hardware in black type, made of steel, accomplishment and installation			Page 134	B 10
lockings	see Fig. 07.23			B 11
B.07.4.11.2 Doors in upper attic				B 12
Door systems in upper attic shall be accomplished as steel doors as far as required. Accomplishment and quality acc. to section B 07.4.6.1.			Page 155	B 13
Rooms requiring door systems with a fire resistance class shall be accomplished and installed with a fire resistance class			Page 166	
acc. to section B 07.4.9 and acc. to construction supervisory allowance,			Page 134	B 14
hardware in black type, made of steel	see Fig. 07.23			B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

SOURCE

B 07 4.11 EXTERIOR ACCESS DOORS – STAIRWELLS - MECHANICAL Steel doors

DOOR LEAF

Manufacturer	HODAPP	FRANZEN	KÖRNER	HÖRMANN
Type / No.	SNT-1	SNT-1	SNT-1	T 30-1 / H3
Construction acc. to DIN 18 202 T3	X	X	X	X
Fire protection DIN 4102/T5				
Door thickness total mm	54	54	54	56
Edge formation				
Area weight kg/m²				
Air sound insulation DIN 4109				
Sound insulation size Rw dB				
Sound insulation size Rw,P dB				
Additional functions:				
Special door stopper	X	X	X	X
Saflok/electr. door opener	X	X	X	X
Construction supervisory allowance				
Door supply air	X*	X*	X*	X*
HARDWARE / HINGES				
Manufacturer				
Hinges / article no.				
Hinge installation element				
max. door weight kg				
Support bolts				
Adjustment possibility				
TOP DOOR CLOSER				
Manufacturer	GEZE	DORMA		
Article no., 1-wing.	TS 5500 S,X	TS 93 NK		
Article no., 2-wing				
Surface	nirosta	nirosta		

- X = to be accomplished and/or installed
 F = fold formation
 NZ = acc. to construction supervisory allowance
 M = door leaf with mineral wool filling
 3D = three-dimensional adjustable hinge
 * = shortening of door leaf in rebate fold – supply air

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DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

		SOURCE	B 01
B 07.4.12	ENTRANCE DOORS – main entrances		
Building entrance doors shall be provided as 1-wing doors, as solid wood doors made of oak wood. Minimum wood thickness 68 mm.			B 02
Recommended Design:		STPL T3 001 00G	B 03
Type 1 from	1.25 m width		B 04
Type 2 up to	1.50 m width		B 05
Type 3 more than	1.50 m width		B 06
Minimum clear passage door opening			B 07
Width	1.125 m		B 08
Height	2.125 m		B 09
A lateral glass panel shall be arranged on doors with a width of up to 1.50 m. Glass panels shall be arranged on both sides, if doors are wider than 1.50 m.			B 10
Special types are possible, if openings already exist, or if monument preservation requirements must be observed.			B 11
EXECUTION:			B 12
The entire door structure including wooden fillers shall be manufactured of solid oak wood. Surfaces shall be painted transparent.			B 13
Frames and/or freeze widths shall be adapted to installed hardware, especially the Saflok hardware.			B 14
Glazing beads made of solid wood, with countersunk screws, screw-fastened.			B 15
Minimum frame thickness	68 mm		
Surface treatment of entire door system with an open pore transparent enamel with light pigments, so that no graying will arise. In requirements of following painting group, with a dry layer thickness of at least 70 mü.			
Paint group	B 6/II E	IfFt *)	
Hardware:			
Hinges			
Product	3 ea per door		
Article	SIMONS		
Material	VS 1939		
	1.4301		
Lock:			
Lock class	4	DIN 18 251	
Product	BKS KIMA		
Article	20 KU		
Clip follower	9 mm		
Forend	stainless steel, rounded		
Electrical door opener:			
Electrical door opener with a stainless steel cuff, cable entrance water-tight, accomplishment 12 V, electrical delocking, eE, (100 % turn-on duration) with recovery diode.			
The door facility shall be rebated three times, so that the closer of the electrical door opener will not be exposed.			
		STPL T3 001 00G	B 15

*) Institut für Fenstertechnik e.V., Rosenheim

DESIGN GUIDELINES

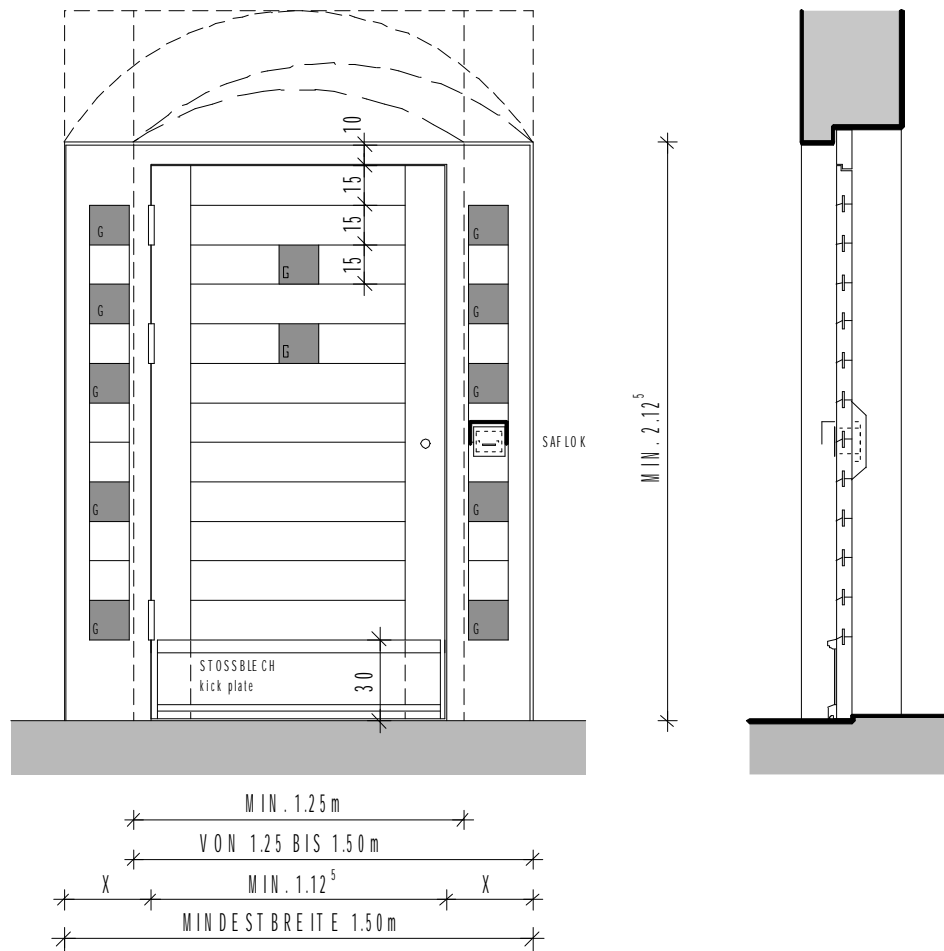
USAREUR - Restoration Program of Troop Billets - Standard 1+1

		SOURCE	
To be installed:			B 01
Product	Eff-Eff		
Article No.	141 05 Fafix, 12V, eE, SI IW (US)		B 02
Cuff	Nirosta		
Locking system:			
Electronic magnetic card opening system			
Product	SAFLOK		B 03
Type	Classic V		
with protective cover / plexiglass			
180 / 180 / 80 mm			
joints to be sealed, installation in wall or in stationary part of door system			B 04
Handle set:			
Product	VIELER		
Article	ER.US.WG.2.522.K2		B 05
without PC-perforation			
Kick plates:			
on both sides			
Material	stainless steel		B 06
Sheet thickness	1 mm thick		
Height	300 mm across full door width		
Fastening	glued and exposed screw fastening		
Surface	grain 240		B 07
A solid wooden ledge, rounded, with drip groove, shall be attached over the kick plate and a solid wood drip groove strip shall be attached on the door underside.			
Minimum dimensions	40 x 50 mm		B 08
Special arresters installed on top shall be preferred. The following described arrester can be only installed if the use of these arresters is not possible.			
Special door arrester:			
Made of stainless steel pipes with a suspension device to wall, fastened on top.		STPL T3 004 00G	B 09
Door arrester alternative:			
Product	KWS		
	door arrester		
Article	1010		B 10
GLAZING			
Glass type	composite security glass, consisting of VSG-glass, minimum thickness 10 mm		B 11
			B 12
			B 13
			B 14
			B 15

USAREUR - Restoration Program of Troop Billets - Standard 1+1

USAREUR - Restoration Program of Troop Billets - Standard 1+1

B 15



DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

		SOURCE	
B 07.4.13	WINDOWS		B 01
GENERAL:			
Windows can generally consist of various materials. Existing design guidelines for troops barracks buildings referring to material and color design shall be observed in design and execution.			B 02
In case of existing windows which can be maintained, newly installed windows shall match existing windows in construction and material.			B 03
The following types can be selected:			
1. Wooden windows			B 04
2. Plastic windows with interior steel reinforcement for fastening of insect protection			
3. Aluminum windows			B 05
4. Composite steel structures			
Material to be selected shall already exist at the site or be specified in the "Installation Design Guide".			B 06
The glass areas of the windows shall achieve at least 1/10 of room basic area. If lower dimensions are required due to structural forces (smaller window openings), these shall be coordinated with USAREUR at commencement of design.			B 07
Recommended accomplishment of windows:			
The following shown window type 1, 2-wing window with settling wood and 2 turn-tilt wings shall be installed for bedrooms. Recommended type Fig. 07.38 .			B 08
Type 2 (Fig. 07.40) is recommended at larger openings.			
In areas where the point of views of protection of historic buildings and monuments are important, solutions acc. to type 1A and 2A (Fig. 07.39 and 07.41) can be chosen.			B 09
For windows in bathrooms, window type 3 (Fig. 07.42) for protection of historic buildings and monuments type 3 A (Fig. 07.43).			B 10
Window Quality:			
Guidelines and recommendations of the Institut für Fenstertechnik, Rosenheim, shall be binding for design and execution. The requirements of the quality associations (RAL-Quality) shall, furthermore, be used as minimum requirement for the execution of windows. These are:			B 11
- Institut für Fenstertechnik e.V., Rosenheim		IfFt*)	B 12
- Paint Group for Wood in Exterior Application			
- Provision of Connections Between Windows and Structure			
- RAL Quality Assurance RAL-RG 424-1 -			
Test Requirements for Wooden Windows		RAL-RG 424-1	B 13
- RAL-RG 636-1 - Quality and Test Requirements for Aluminum Windows		RAL-RG 636-1	
- RAL-RG 716-1 - Quality and Test Requirements for Plastic Windows		RAL-RG 716-1	
Wood window profiles			
At least profiles of construction type IV 68 shall be accomplished at wood window profiles acc. to DIN 68 121. The weight of panes may require profiles of construction type IV 78 depending on the size of the window wing.		DIN 68 121	B 14
			B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

	SOURCE	
Hardware quality		B 01
The entire hardware shall be selected on the basis of the leaf weight; selection of a lower hardware class (weight class) is unacceptable.		
Requirements of DIN EN 77, DIN EN 107 shall be observed.		B 02
Requirements shall be met according to RAL-RG-607-3 - Quality and Test Requirements for Turn/Tilt Hardware	RAL-RG-607-3	
The following requirements shall be observed for window construction:		B 03
DIN EN 42 - Test Procedure for Windows, Testing of Joint Permeability	DIN EN 42	
DIN EN 77 - Test Procedure for Windows, Testing of Wind Resistance	DIN EN 77	
DIN EN 86 - Test Procedure, Testing of Pelting Rain Resistance under Static Pressure	DIN EN 86	B 04
DIN EN 107 - Test Procedure for Windows- Mechanical Tests	DIN EN 107	
Thermal protection:		
All constructions shall correspond at least to frame material group 2.1 W/(m ² K).	DIN 4108 T4	B 05
Building connections:		
Building connections shall be carefully designed in reference to sound protection as well as to thermal protection. The recommendations of Institut für Fenstertechnik shall be observed.		B 06
Joint permeability / Resistance against Pelting Rain		
Windows shall at least meet the Stress Group B , DIN 18 055	DIN 18 055	B 07
These shall be observed in areas where higher requirements are existing.		
Sound insulation		
Basis for evaluation and design of sound insulation of windows is VDI 2719 Sound Insulation of Windows and Additional Equipment	VDI 2719	B 08
All windows shall at least be in conformance with Sound Insulation Class 3. Increased requirements can apply to sites under increased noise accumulation. They shall be coordinated with USAREUR prior to commencement of design.		B 09
Insect protection:		
Insect protection shall be installed at all windows – except stairwell windows, corridor windows and mechanical rooms. Accomplishment acc. to Fig. 07.44.	STPL I3 001 00G	B 10
Windows shall be provided with an insect protection on exterior side. The bracing frames shall be accomplished in aluminum powder coated (color shade adjusted to windows). The constructions are easily removable (due to later renovations). Fastening to blind frame and/or settling wood. The bracing made of non-rottening fiberglass fabric with high light passage.		B 11
		B 12
		B 13
		B 14
		B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

		SOURCE
Sealing profiles:		B 01
Only elastomers such as EPDM are allowed as sealing profiles, corners shall be connected by vulcanizing:		
Glazing of windows:		B 02
Only window constructions with a double-sided front band and elastical sealing on both sides and/or with sealing profiles on both sides shall be accomplished.		
Glass beads shall only be screwed with wood windows. Glass beads shall be provided with the same solidity with other window constructions.		B 03
The glazing recommendations of insulation glass manufacturers shall be strictly observed.		
Glass types are for:		B 04
Bedrooms, kitchens, game room, room for telephone, corridor, stairwell windows and offices and/or storage rooms:		
e. g. Isolar	Neutralux classic, article no. 101	B 05
Glass type	insulation glass	
k-value	1.5 W/m² x K	
Glass types are for:		B 06
Bathrooms, latrines, janitor's closets, rooms in basement (without offices) and rooms in attic with storage bin rooms for soldiers:		
Isolar	Neutralux classic, article no. 101	B 07
Glass type	k-value 1.5 W/m² x K	
Exterior side	float glass pane	
Texture	200	
Exception:		B 08
Fire protection glasses shall be installed in construction supervisory tested construction.		
Specifications:		B 09
The designer shall specify the windows as an alternative acc. to the criteria described in the following within a separate section of the specifications for determination of the price increase for this special construction.		
Glass types are for:		B 10
Bedrooms, kitchens, game room, room for telephone, corridor, stairwell windows and offices and/or storage rooms:		
Glass types are for:		B 11
Bedrooms, kitchens, game room, room for telephone, corridor, stairwell windows and offices and/or storage rooms:		
Product	Isolar	
Article	Neutralux classic US	
Glass type	insulation glass	
k-value	1.5 W/m² x K	B 12
Glass types are for:		
Bathrooms, latrines, janitor's closets, rooms in basement (without offices) and rooms in attic with storage bin rooms for soldiers:		B 13
Glass types are for:		
Article	Neutralux classic US	
Glass type	insulation glass	
k-value	1.5 W/m² x K	B 14
Exterior side	float glass pane	
Texture	200	
		B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

		SOURCE	
Pane structure:			B 01
Exterior pane viewer – plate glass 6 mm, 12 mm gas filling, interior pane as laminated glass pane 8 mm (2x4 mm), a foil 0.38 mm inserted in between the two.			B 02
Total thickness approx. 27-28 mm. (Metal-coated side shall be installed on exterior side of the window)			B 03
Hardware:			B 04
All operational wings shall be generally equipped with turn/tilt hardware.			B 05
The hardware shall be selected according to the wing weight. Selection of a lower hardware class (weight class) is unacceptable.			B 06
Turn/tilt hardware shall have the following minimum functions:			B 07
Turn/tilt hardware with variable gear seat			B 08
Hardware	concealed with single lever operation		B 09
Handle with lock	concealed screw fastening		B 10
Locking pin and double retaining devices	adjustable		B 11
Corner bearing with lift-out protection	adjustable		B 12
Maloperation protection for	gear		B 13
each wing shall have a window locking device - opening limiter			B 14
Window handles:			B 15
Product	VIELER		
Article	ER.US.FG.525.F10		
Alternative makes are:	DORMA, FSB		
Window sills (exterior):			
If window sills are required, they shall be of powder-coated aluminum, color adapted to windows.			
Window sills shall be provided with lateral upstands, sufficient projection and downstand to prevent soiling of the facades.			
If window sills at the building are to be maintained e.g. cast stone window sills or natural stone window sills, the defective window sills shall be replaced acc. to material or repaired.			
Window sills (inside) are required in all rooms, as required and described in		B 07.1.1.3	B 11
		Page 75	
Transom Windows			B 12
Transom windows shall be provided in case of existing window openings exceeding 1/10 of the room floor area plus frame elements or extremely high window openings.			B 13
Transom windows shall be adapted to the window arrangement. Transom windows should preferably be designed - if the size is adequate - as turn/tilt windows.			B 14
These solutions shall be coordinated with "USAREUR" upon commencement of design.			B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

Type 1:

Recommended type (Fig. 07.38)

Type 1A:

Recommended window type for buildings under monument preservation, the number of bars can be varied (Fig. 07.39)

The execution shall be coordinated with "USAREUR" prior to commencement of design.

Fig. 07.38 Type 1

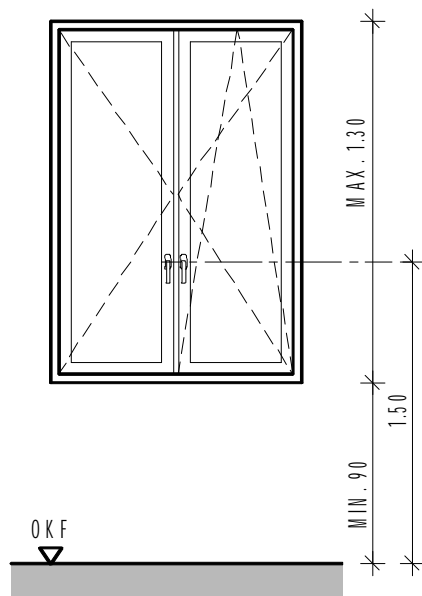
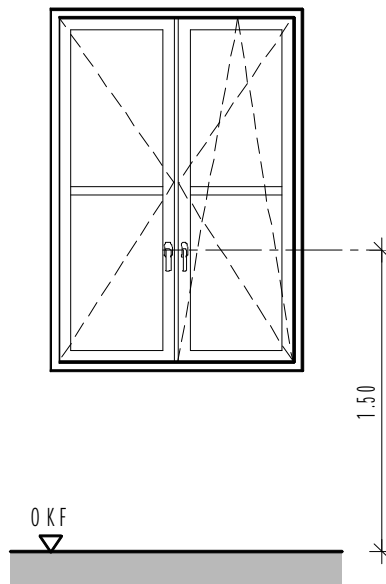


Fig. 07.39 Type 1A



Windows up to a width of 1.25 m shall be provided without post. Windows of more than 1.25 m width shall have a post, both wings shall be turn-tilt wings then.

Windows up to width of 0.90 m shall be provided as one-wing windows.

Recommended window heights up to approx. 1.30 m, windows of more than 1.30 m height shall have skylights. (See Page 185).

SOURCE

B 01

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DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

Type 2:

Recommended type (Fig. 07.40)

Type 2A:

Recommended window type for buildings under monument preservation, the number of bars can be varied (Fig. 07.41)

The execution shall be coordinated with "USAREUR" prior to commencement of design.

Fig. 07.40 Type 2

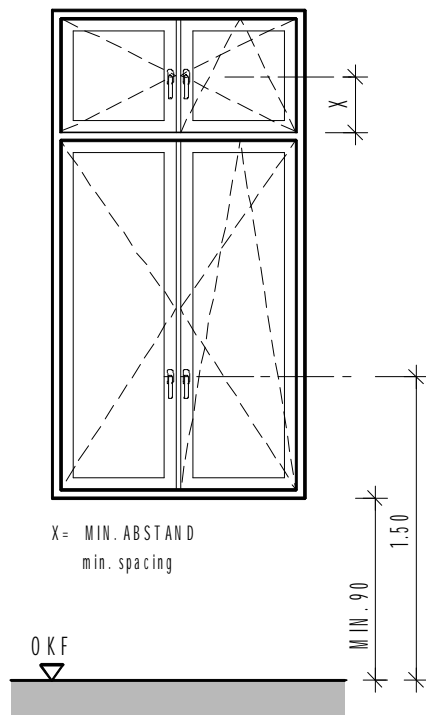
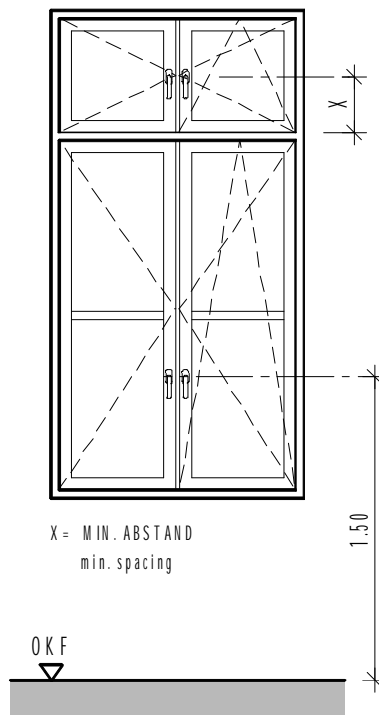


Fig. 07.41 Type 2A



Windows up to a width of 1.25 m shall be provided without post. Windows of more than 1.25 m width shall have a post, both wings shall be turn-tilt wings then.

Windows up to width of 0.90 m shall be provided as one-wing windows with a skylight.

SOURCE

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DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

Type 3:

Recommended window accomplishment in the area of bathrooms (Fig. 07.42).

Type 3A:

Recommended window type for buildings under monument preservation, the number of bars can be varied (Fig. 07.43)

The execution shall be coordinated with "USAREUR" prior to commencement of design.

Fig. 07.42 Typ 3

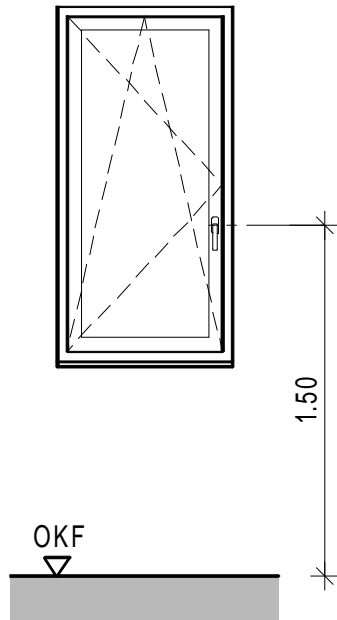
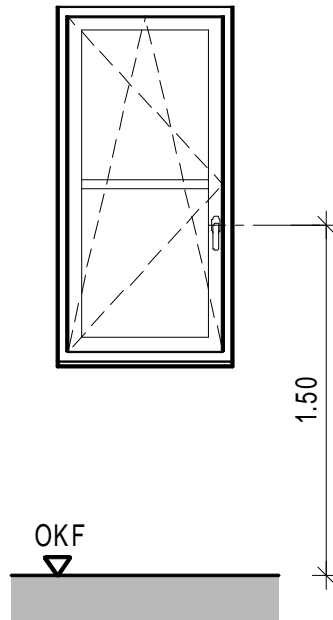


Fig. 07.43 Typ 3A



SOURCE

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DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

SOURCE		
<p>B 07.4.13.1 Curtains – Vision Screening / Protection against Splinters The US Army provides curtains and/or side curtains in rooms as vision screening for occupants and as catch elements for glass splinters coming off. Curtain tracks shall be installed for this purpose.</p> <p>No curtain tracks shall be installed in the following rooms: mud room, laundry; all janitor's closets, arms rooms, latrines, storage bin rooms for soldiers.</p> <p>B 07.4.13.1.1 Curtain tracks Track structures shall be mounted to and/or in the ceiling as described in the following.</p> <p>B 07.4.13.1.1.1 Installation without suspended ceiling: Curtain tracks made of wood, interior guide track consisting of white PVC with wood core, without joints and glue. 50 mm high trim made of plywood with white PCV coating. Execution with 3 continuous covering rails with enlarged rail spacings at covering rails. End pieces on both sides as well as 25 small plastic rollers with safety lock so that they do not have to be removed for washing of curtains. Moreover, 2 x 90° bends shall be provided at the ends for return of tracks to the wall. The track shall be mounted onto the ceiling with spacings of 20 cm on the wall. Curtain tracks covering the entire room length shall not be installed. The tracks shall project the window by approx. 20 cm on both sides.</p> <p>B 07.4.13.1.1.2 Curtain track support with suspended ceiling: the substructure for curtain tracks, as far as suspended ceilings are required, shall be made of C-profiles and installed above suspended ceilings with Nonius suspenders as well as appropriate bracings.</p> <p>Installation location / curtain tracks of all rooms without bathrooms, corridors and staircases Product MHZ Article No. 01-6112</p> <p>Installation location / curtain tracks of all bathrooms, corridors, staircases recess-mounted in the ceiling, e. g. (in bottom GKB-panel of bathroom, or flush mounted) Product MHZ in bathroom article no. 2434, color 171, width 92.5mm in corridors/staircases article no.. 2424, color 171, width 66.5mm Material Aluminum</p> <p>Curtain tracks in corridors and staircases extend from wall to wall. Curtain tracks in bathrooms shall project the window opening by 25 cm to the left and to the right.</p> <p>B 07.4.13.1.2 Curtains-Side Curtains</p> <p>Specifications: Curtains shall be purchased and specified in the course of this project. A separate section “Curtains” shall be included in specifications. No other building elements shall be specified in this section. It is to be stated within this section that the US Army reserves the right to furnish and install the curtains.</p>		B 01
		B 02
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		B 04
		B 05
		B 06
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DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

			SOURCE																		
<p>Curtains shall reach until 15 cm below the window sill. To the sides the curtains shall be led to the wall in curves and fastened. Curtains shall project the window opening by at least 25 cm to the left and to the right and fastened at the ends in bathrooms.</p> <p>Curtains shall overlap at least 25 cm in rooms. Room curtains shall be specified with the total width as well as a surcharge of 50 % for plaits.</p> <p>The real estate administration can select a color from the color card; the color shall not be changed within one building.</p> <p>Curtains shall be installed in: bedrooms, kitchens, game room, room for telephones, office and/or storage rooms, bathrooms, latrines.</p> <p>To be installed:</p> <table><tr><td>Product</td><td>COLUMBUS</td></tr><tr><td>Article</td><td>Optimal</td></tr><tr><td>Curtain weight</td><td>300 g/m²</td></tr><tr><td>Tensile strength</td><td>chain approx. 450 N Schuss approx. 350 N</td></tr><tr><td>Restkrumpfung</td><td>approx. 0 – 0.5%</td></tr><tr><td>Material class</td><td>B1</td></tr><tr><td>permanent</td><td>hardly inflammable acc. to DIN 4102</td></tr></table> <p>Alternative products are: BRICHTA DELIUS</p> <table><tr><td>Article No. and colors</td><td>see</td><td>list of equivalence color list</td></tr></table>			Product	COLUMBUS	Article	Optimal	Curtain weight	300 g/m ²	Tensile strength	chain approx. 450 N Schuss approx. 350 N	Restkrumpfung	approx. 0 – 0.5%	Material class	B1	permanent	hardly inflammable acc. to DIN 4102	Article No. and colors	see	list of equivalence color list		B 01
			Product	COLUMBUS																	
			Article	Optimal																	
			Curtain weight	300 g/m ²																	
			Tensile strength	chain approx. 450 N Schuss approx. 350 N																	
			Restkrumpfung	approx. 0 – 0.5%																	
			Material class	B1																	
			permanent	hardly inflammable acc. to DIN 4102																	
			Article No. and colors	see	list of equivalence color list																
					B 02																
					B 03																
					B 04																
					B 05																
					B 06																
					B 07																
		B 08																			
		B 09																			
		B 10																			
		B 11																			
		B 12																			
		B 13																			
		B 14																			
		B 15																			

DESIGN GUIDELINES

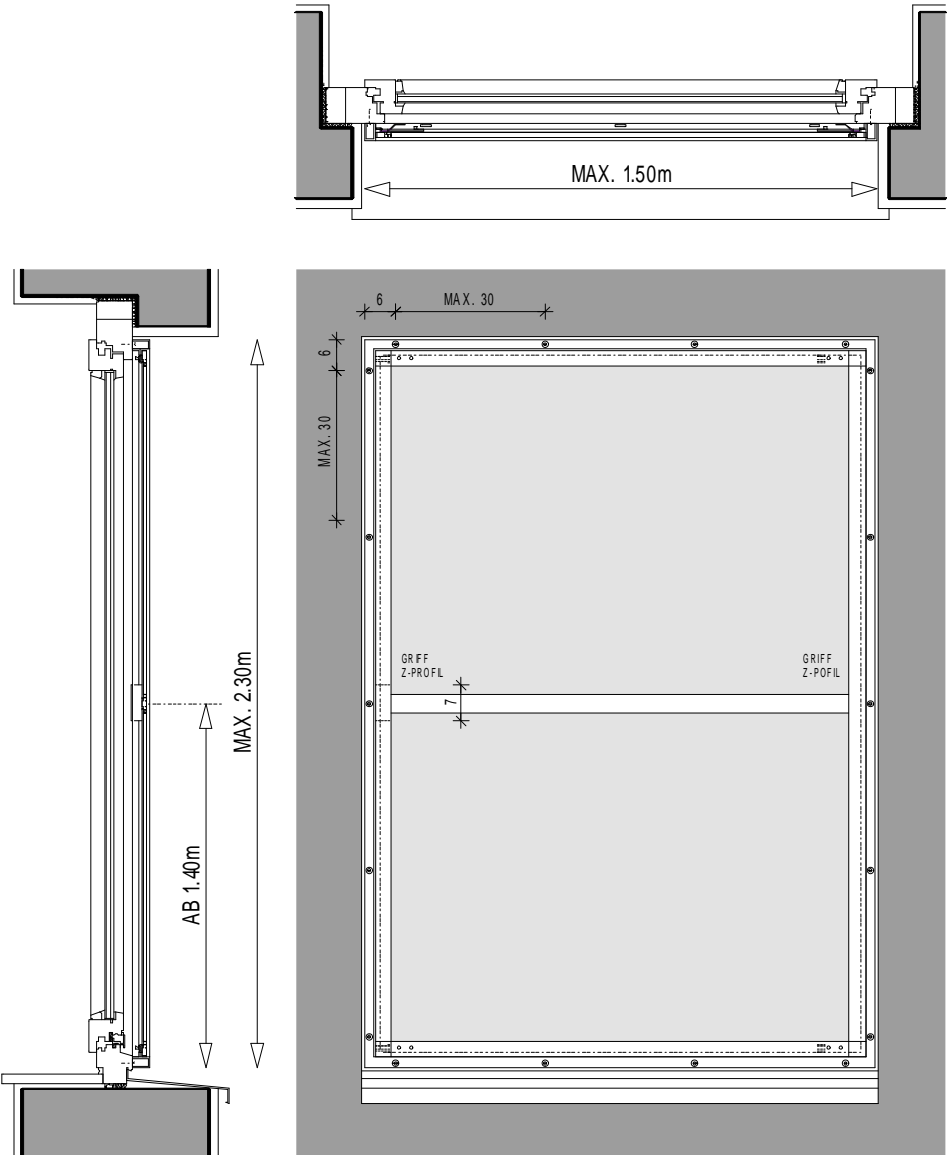
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B 07.4.13.2 Insect protection:

Insect protection shall be installed at all windows – **except** stairwell windows, corridor windows, mechanical rooms, storage bin rooms in attic and basement windows. Accomplishment acc. to **Fig. 07.44**.

Windows shall be provided with an insect protection on exterior side. The bracing frames shall be accomplished in aluminum powder coated, basic frame made of aluminum rectangular pipes welded to corners (color shade adjusted to windows). The interior constructions shall be constructed easily removable (due to later renovations). Fastening to blind frame and/or settling wood. The bracing made of non-rottening fiberglass fabric with high light passage.

Fig. 07.44 Insect protection



SOURCE

STPL
I3 001 00G

B 01

B 02

B 03

B 04

B 05

B 06

B 07

B 08

B 09

B 10

B 11

B 12

B 13

B 14

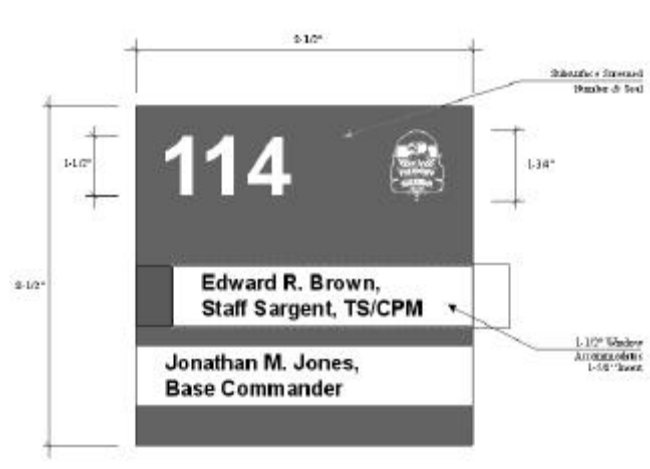
B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

		SOURCE
B 07.5	SIGNAGE	B 01
The entire signage, including lettering, shall be procured as part of the project. Wherever possible, signage shall consist of one signage system with identical dimensions.		B 02
Letter type: Basically, letter type Helvetica semibold shall be used, except the existing regulations require another letter type; then this shall be accomplished.		B 03
B 07.5.1	General Signage	B 04
All required signs for safety, accident protection shall be installed acc. to American and German regulations – as far as required in accordance with applicable guidelines.		B 05
B 07.5.2	Door signs – entrances rooms	B 06
Doors signs with removable covering, for insertion of a printed sheet 180/180 mm, invisible fastening. Room number engraved or screen-printed on cover plate, cover plate of metal-coated plexiglass.		B 07
Note: The sign shown in Fig. 07.45 serves as reference for design, the above described sign shall be installed.		B 08
Product	GWE Grafische Werkstätte Eppstein 65 817 Eppstein Am Herrngarten 12	B 09
Dimension	180/180 mm	B 10
Article No.	17.198	B 11
Frame color	NCS S 1502 – Y50R	B 12
Mask model software	for MS-Word Version 7.0/8.0	B 13
Article No.	18.808	B 14
Fig. 07.45		B 15

Fig. 07.45



DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

		SOURCE	
B 07.5.3	Function signs		B 01
All doors of corridors to stairwells, main exits, staircase exits shall be provided with signs push or pull.			
Product	VIELER		B 02
Article	"pull" ER.US.TF.0632		
	"push" ER.US.TF.0633		
	„pull to open“ is a special make		
All doors in corridors dividing the fire sections and/or smoke sections shall be marked in walking direction with „push“ (ER.US.TF.0633) and on opposite side with „pull to open“.			B 03
			B 04
Signs in dimension	24.5/24.5 cm		
subbase	red NCS S 2070-R		B 05
lettering	white		
letter height	20mm		
shall be installed to door leafs at door systems with arrester devices with following lettering:			B 06
<div style="border: 1px solid black; padding: 5px; text-align: center;"> DO NOT PULL TO CLOSE USE SWITCH ON WALL </div>			B 07
Signs in size and accomplishment same as described above shall be installed to tile walls above release push buttons with following lettering:			
<div style="border: 1px solid black; padding: 5px; text-align: center;"> SWITCH TO CLOSE DOOR </div>			B 08
An occupation sign, dimension and accomplishment same as above, shall be installed in game room of attic with lettering:			B 09
<div style="border: 1px solid black; padding: 5px; text-align: center;"> DAYROOM MAXIMUM OCCUPANTS 49 </div>			B 10
Information signs with shape and lettering see (Fig 07.46) shall be installed in stairwells with more than 5 floors on each floor.			B 11
Subbase	NCS S 7005-B20G		
Letter color	white		
Dimension:	24/24 cm		B 12
Product	GWE Grafische Werkstätte Eppstein		
	65 817 Eppstein		
	Am Herrngarten 12		B 13
Article No.	17.000		
			B 14
			B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

Fig. 07.46



P5-NFPA 9" x 9", 12" x 12"

B 07.7.4 Symbol Pictographs

All latrine entrances shall be provided with symbols. Pictographs can be arranged, as required.

Symbols
or
VIELER / stainless steel

Pictographs
HEWI
ERCO or equal type

If standard pictographs are required e.g. (fire protection area), standard pictographs shall be used.

B 07.5.5 Direct Lettering

A room number shall be directly applied with enamel paint, in the center, over room doors.

Size of numeral
Type
Color
8 cm
Helvetica, medium-faced
see color schedule

B 07.5.6 Building numbers

Each building shall be provided with two building numbers on two building corners, therefore, a total of four building numbers per building.

Execution as follows:

Size of numeral
Type
Color
20 cm
Helvetica, medium-faced
black

SOURCE

B 01

B 02

B 03

B 04

B 05

B 06

B 07

B 08

B 09

B 10

B 11

B 12

B 13

B 14

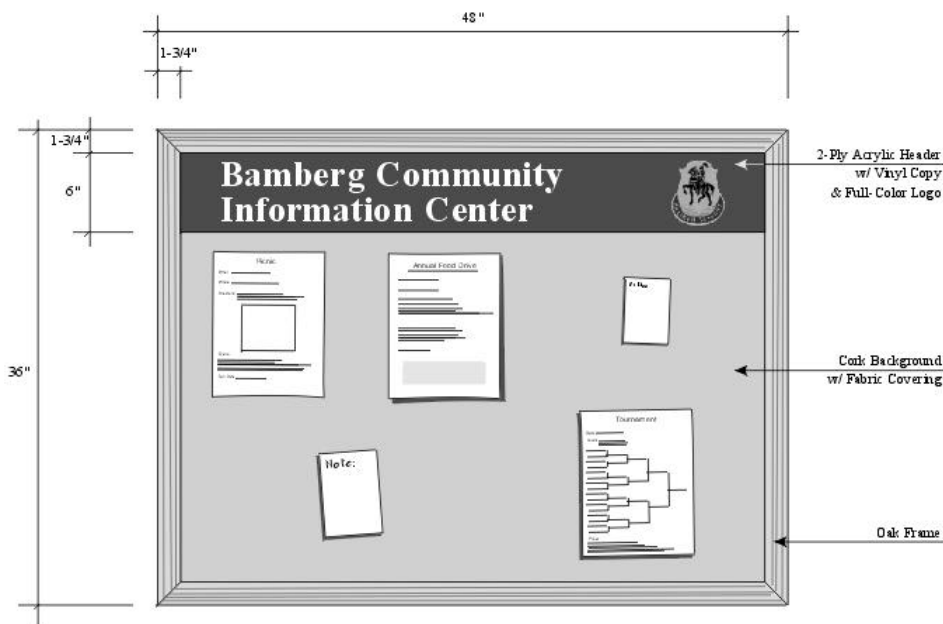
B 15

Page 202-203

DESIGN GUIDELINES

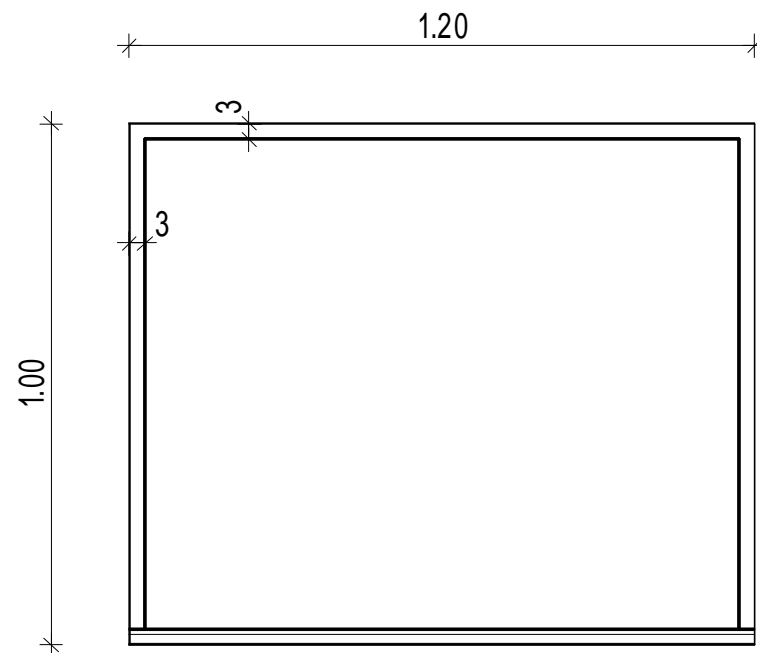
USAREUR - Restoration Program of Troop Billets - Standard 1+1

			SOURCE	
B 07.5.7	Information systems			B 01
Each building will be provided with information panels, consisting of aluminum boxes with a back wall made of steel, white and a single-pane laminated glazing, top-hung sash equipped with gas pressure openers, a lock and with at least 40 ea magnets.				B 02
The back wall in top area shall be covered and lettered above the entire width on a height of 20 cm with foil. The real estate shall provide the LOGO.				B 03
Fig 07.47				B 04
The number of information panels in building shall be coordinated with the real estate administration.				B 05
Back wall	white	NCS S 3060-B		B 06
Top strip height 16 cm	blue			B 07
Lettering	white			B 08
Product	GWE Grafische Werkstätte Eppstein 65 817 Eppstein Am Herrngarten 12			B 09
Article No.	42.20, surface mounted installation			B 10
Dimension:				B 11
Width	1.50 m			B 12
Height	1.00 m			B 13
Depth	0.08 m			B 14
Fig. 07.47				B 15



DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

		SOURCE
Information panels per floor		B 01
Information panels shall be installed on every floor in the area of the kitchen entrance, near the American telephone. Steel, white coated, deposit strip and 1 set of markers, 1 set of magnets as well as a cleaning sponge.		B 02
No information panels shall be installed in basement and attic.		
Product	GWE Grafische Werkstätte Eppstein 65 817 Eppstein Am Herrngarten 12	B 03
Article No.	VC-30011	B 04
Color	white	
Dimension:		B 05
Width	1.20 m	
Height	1.00 m	
Starter kit	consisting of: cleaning sponge, magnets, 4 felt-tip pens	B 06
Article No.	VN 92020	B 07
Fig. 07.48		B 08
		B 09
		B 10
		B 11
		B 12
		B 13
		B 14
		B 15

DESIGN GUIDELINES

USAREUR - Restoration Program of Troop Billets - Standard 1+1

B 07.5.8 Fire Exit Plan

Escape way plans shall be installed in each building. The signs consist of a two-shell plexiglass construction, the second shell with frame, lettered with a top border 15 cm wide, lateral and bottom a border with 4 cm wide color shade

NCS No. S 2070-R

lettering white serigraphy printing acc. to direction, a distance of 1.00 mm thickness, shaped and a back wall. Lateral open chase for insertion of plan made of thick plotting paper. Accomplishment see (Fig 07.48)

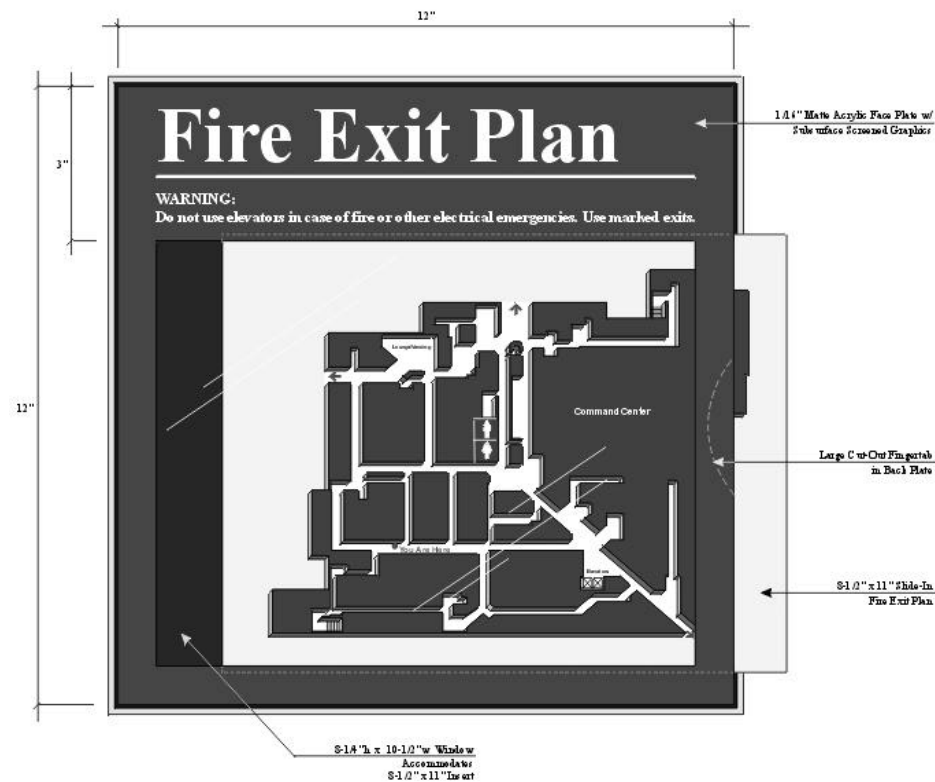
Dimensions:
Width/height

74cm

Product

GWE Grafische Werkstätte Eppstein
65 817 Eppstein
Am Herrngarten 12

Fig. 07.48



SOURCE

B 01

B 02

B 03

B 04

B 05

B 06

B 07

B 08

B 09

B 10

B 11

B 12

B 13

B 14

B 15